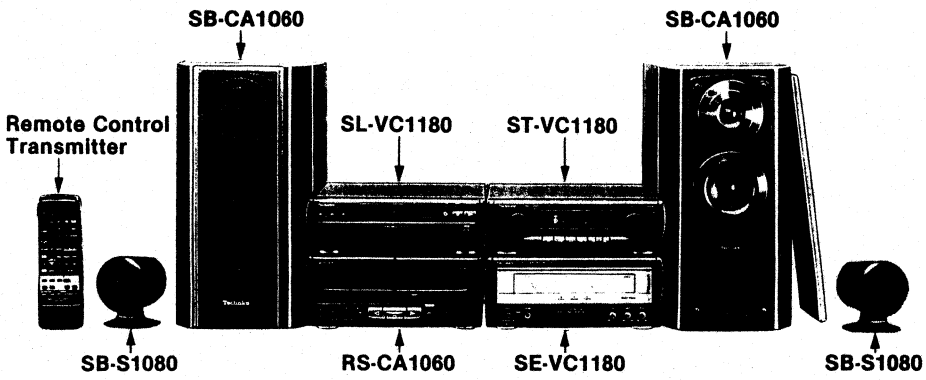
ORDER NO. AD9506168A2

Service Manual

Tuner

Stereo Tuner

ST-VC1180



Colour

(K)...Black Type

Areas

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)
(EG)	Germany and Italy.	

System: SC-VC1180

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

Please file and use this manual together with the service manual for Model No. ST-CA1080 Order No. AD9406153C2 and Supplement Order No. AD9410288S2.

Notes: • This simplified service manual is provided to indicate the main differences between the original model No. ST-CA1080 (E) and subsequent model No. ST-VC1180 (E, EG).
• Refer to the Installation and Connections and Concerning the remote control and Quick reference of remote control operations of Service manual for Model No. SL-VC1180 (E), Order No. AD9506160C2.

CHANGES

■CHANGE IN REPLACEMENT PARTS LIST (SL-CA1080 Service manual of pages 33~37, 39.)

Notes: • Mentioned in this parts list is only those different from Model No. ST-CA1080 (E).
All other parts are the same as for ST-CA1080 (E).

Ref. No.	Change of Part No. ST-CA1080 (E) ➡ ST-VC1180 (E, EG)		Part Name & Description	Remarks
INTEGRATED CIRCUIT(S)				
IC302	XLU2040F-T1	**BU2040F-T2**	SYSTEM CONT.	
IC801	M38173M6289F	**M38173M6356F**	SYSTEM CONT./FL DRIVE	
TRANSISTOR(S)				
Q106	UN411FTA	**UN4111**	TRANSISTOR	(E)
		UN411FTA	TRANSISTOR	(EG)

System	Tuner	Video CD Changer	Amplifier	Cassette Deck	Speaker
SC-VC1180	**ST-VC1180**	SL-VC1180	SE-VC1180	RS-CA1060	*SB-CA1080 (SB-CA1060+ SB-S1080)

*Made in PAES

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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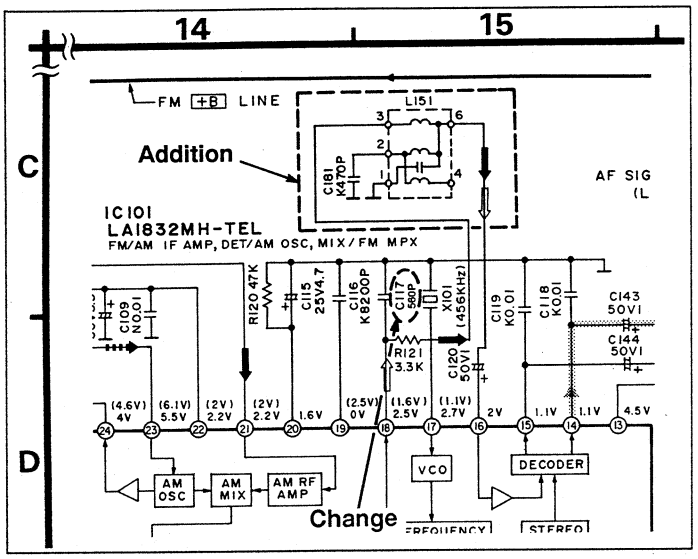
Ref. No.	Change of Part No. ST-CA1080 (E) ➡ ST-VC1180 (E, EG)		Part Name & Description	Remarks
DIODE(S)				
D815	—	**MA165**	DIODE	Addition
COIL(S)				
L104	—	**ELEXT1R0KA9**	COIL	(E) Addition
		—	—	(EG)
L151	—	**SLM1B10M-1M**	COIL	Addition
FILTER(S)				
CF201	RLFFETWND01M	**RLFFETNGD01L**	CERAMIC FILTER	
CF202	RLFFETWND01M	**RLFFETMGD01L**	CERAMIC FILTER	
FM FRONT END PACK ASS'Y				
Z120	RAL0006	**RAL0019**	FM FRONT END	
JACK(S)				
JK101	RJH5210	**RJH5210M**	ANTENNA TERMINAL	
JK901	SJF3069-5N	**SJF3069-8N**	VDP/VCR2 P.B. (AUDIO)	
JK904	SJF3069-3N	**SJF3069-7N**	VCR1 IN/OUT, VCR2 (VIDEO)	
RESISTORS				
R103	ERDS2TJ271	**ERDS2TJ101**	C. RESISTOR 1/4W 100	(E)
		ERDS2TJ330	C. RESISTOR 1/4W 33	(EG)
R104	ERDS2TJ822	**ERDS2TJ103**	C. RESISTOR 1/4W 10K	
R117	ERDS2TJ273	**ERDS2TJ823T**	C. RESISTOR 1/4W 82K	
R119	ERDS2TJ682T	**ERDS2TJ822**	C. RESISTOR 1/4W 8.2K	
R145, 146	ERDS2TJ102	**ERDS2TJ821**	C. RESISTOR 1/4W 820	
R491–493	ERDS2TJ274	—	—	Deletion
R931–933	—	**ERDS2TJ103**	C. RESISTOR 1/4W 10K	Addition
CAPACITORS				
C108	ECBT1H100JC5	**ECBT1H100JC5**	C. CAPACITOR 50V 10P	(E)
		ECBT1H8R2KC5	C. CAPACITOR 50V 8.2P	(EG)
C117	ECQB1H102JF3	**ECQB1H561JF3**	P. CAPACITOR 50V 560P	
C139, 140	ECBT1C562KR5	**ECBT1C682KR5**	C. CAPACITOR 16V 6800P	
C181	—	**ECBT1H471KB5**	C. CAPACITOR 50V 470P	Addition
C404	ECFR1H152KR	**ECFR1E152KR**	S. CAPACITOR 25V 1500P	
C405	ECQB1H333JF3	**ECQB1H473JF3**	P. CAPACITOR 50V 0.047μ	
C531	ECBT1H102KB5	**ECBT1H104ZF5**	C. CAPACITOR 50V 0.1μ	
C705	ECA1EM102B	**ECA1EM102E**	E. CAPACITOR 25V 1000μ	
C913	—	**ECBT1H102KB5**	C. CAPACITOR 50V 1000P	Addition
C931–933	—	**RCE0JKA470BG**	E. CAPACITOR 6.3V 47μ	Addition
CABINET AND CHASSIS				
4	RGR0194B-A2	**RGR0194C-A**	REAR PANEL	(E)
		RGR0194C-B	REAR PANEL	(EG)
5	RFKJSCH404EK	**RFKJTVC910-K**	BOTTOM BOARD ASS'Y	
9	RFKGTCA1080E	**RFKGTVC1180E**	FRONT PANEL ASS'Y	
11	RFKNT1080EA	**RFKNT1180EA**	INPUT SELECT BUTTON ASS'Y	(E)
		RFKNT1180EGA	INPUT SELECT BUTTON ASS'Y	(EG)
12	RFKNT1080EB	**RFKNT1180EB**	PANEL LIGHT BUTTON ASS'Y	(E)
		RFKNT1180EGB	PANEL LIGHT BUTTON ASS'Y	(EG)

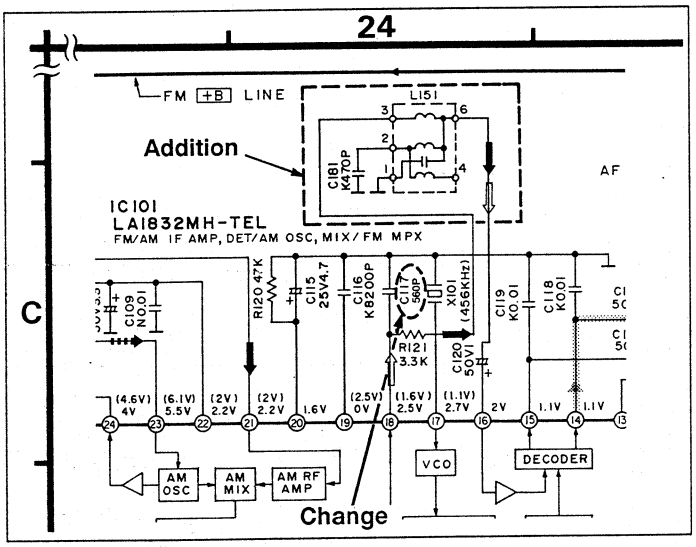
■SCHEMATIC DIAGRAM (ST-CA1080: Service manual of Page 13～24.)

Note: Those parts have added.

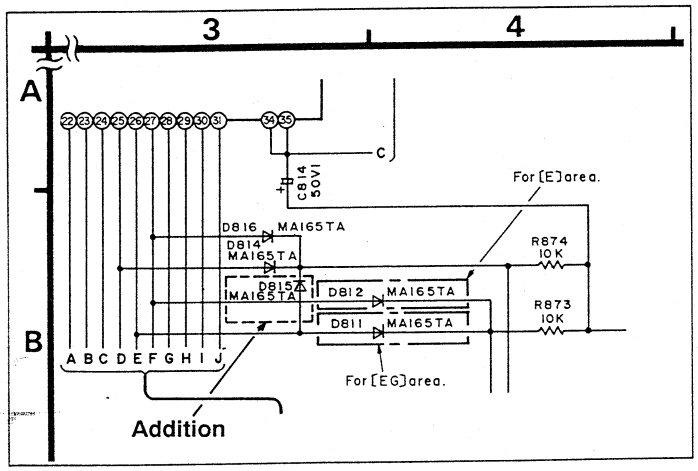
A TUNER CIRCUIT (For [E] area.)

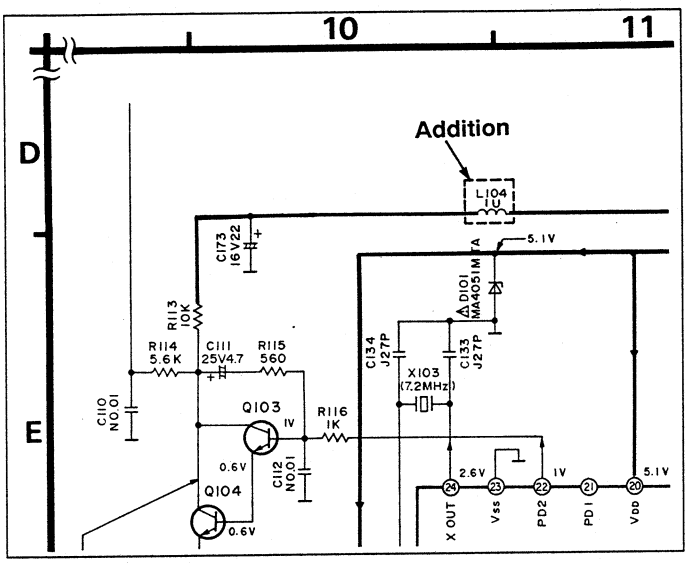


A TUNER CIRCUIT (For [EG] area.)

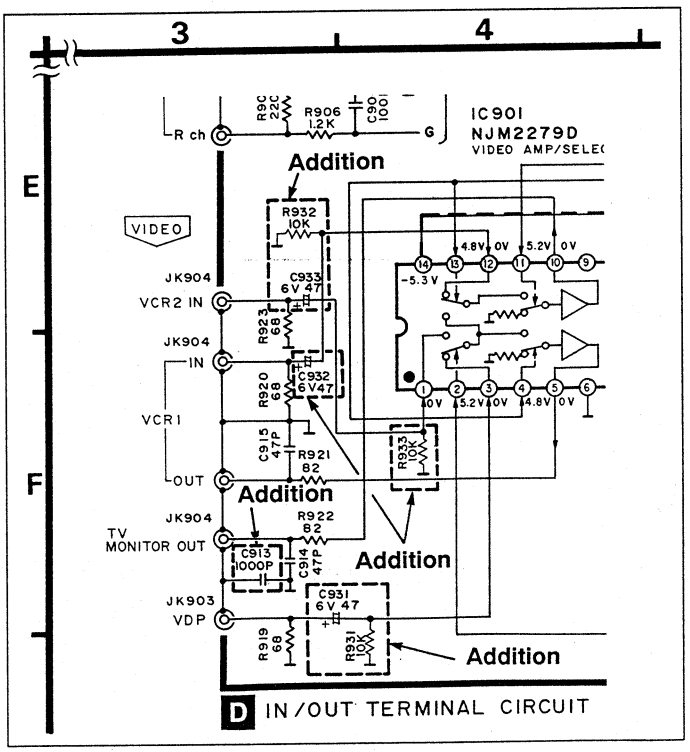


B OPERATION CIRCUIT

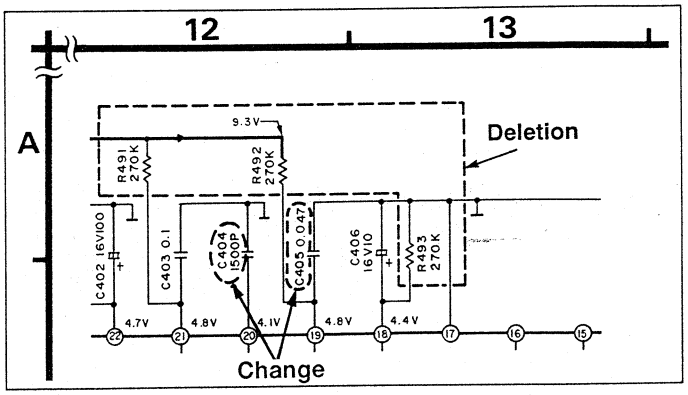




D IN/OUT TERMINAL CIRCUIT



C MAIN CIRCUIT

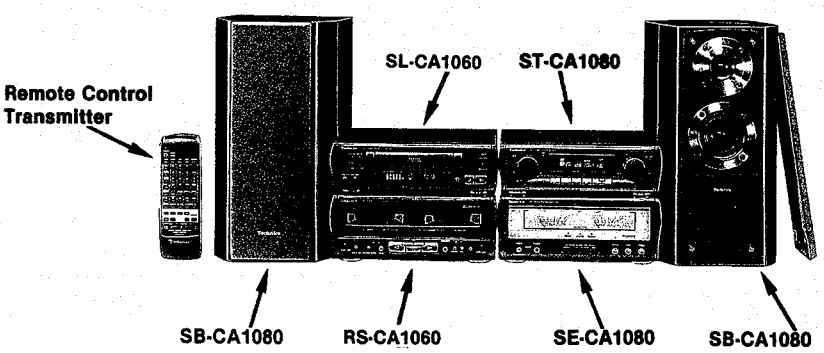


Service Manual

Stereo Tuner

Tuner

ST-CA1080



Colour

(K) ... Black Type

Areas

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)
(EG)	Germany and Italy.	

System: SC-CA1080

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

■ SPECIFICATIONS

■ Pre-amplifier section

Input sensitivity/impedance
- **PHONO** 2.5 mV/47 kΩ
- **DCC, (VDP, VCR1, VCR2)** 250 mV/15 kΩ

Output level
- **VCR1/DCC RECOUT** 150 mV/1.5 kΩ

Frequency response
- **PHONO** 30 Hz–15 kHz/+1.5 to −2.0 dB
- **DCC, (VDP, VCR1, VCR2)** 20 Hz–40 kHz

■ Dolby Pro-Logic section

Mode NORMAL, WIDE, PHANTOM

Delay time 15, 20, 25, 30 ms

■ FM tuner section

Frequency range 87.50–108.00 MHz (0.05 MHz steps)

Sensitivity 1.8 µV (IHF usable)
- **S/N 26 dB** 1.5 µV

S/N
- **MONO** 70 dB (75 dB, IHF)

Stereo separation 1 kHz 35 dB

Antenna terminal(s) 75 Ω (unbalance)

■ AM tuner section

Frequency range
- **MW** 522–1611 kHz (9 kHz steps) 530–1620 kHz (10 kHz steps)
- **LW** 144–288 kHz (9 kHz steps)

Sensitivity (S/N 20 dB)
- **MW** 500 µV/m
- **LW** 50 µV

■ Timer section

Clock Quartz-lock type

Function 24-hour programmable; Play timer (1 time), Rec timer (1 time), Sleep (120 min., 1 min. intervals)

Setting 1 minute–23 hours 59 minutes (1 min. intervals)

■ General

Dimensions (W × H × D) 280 × 89 × 287 mm

Weight 1.75 kg

Notes:

1. Weight and dimensions shown are approximate.
2. Design and specifications are subject to change without notice.

System	Tuner	Compact disc player	Amplifier	Cassette deck	Speaker
SC-CA1080	**ST-CA1080**	SL-CA1060	SE-CA1080	RS-CA1060	*SB-CA1080

*Made in PAES

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ORDER NO. AD9406153C2

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Note: Refer to the replacement Accessories and Packaging of Service manual for Model No. SE-CA1080 (E, EB, EG), Order No. AD9406158C2.

■ INSTALLATION

Stacking the components

Install the various components as shown in the illustration.

System		SC-CA1080
ⓐ	Stereo tuner	ST-CA1080
ⓑ	Power amplifier	SE-CA1080
ⓒ	Compact disc player	SL-CA1060
ⓓ	Cassette deck	RS-CA1060
ⓔ	Speakers	SB-CA1080 / SB-CA1060 SB-S1080

Horizontal stacking A

Vertical stacking B

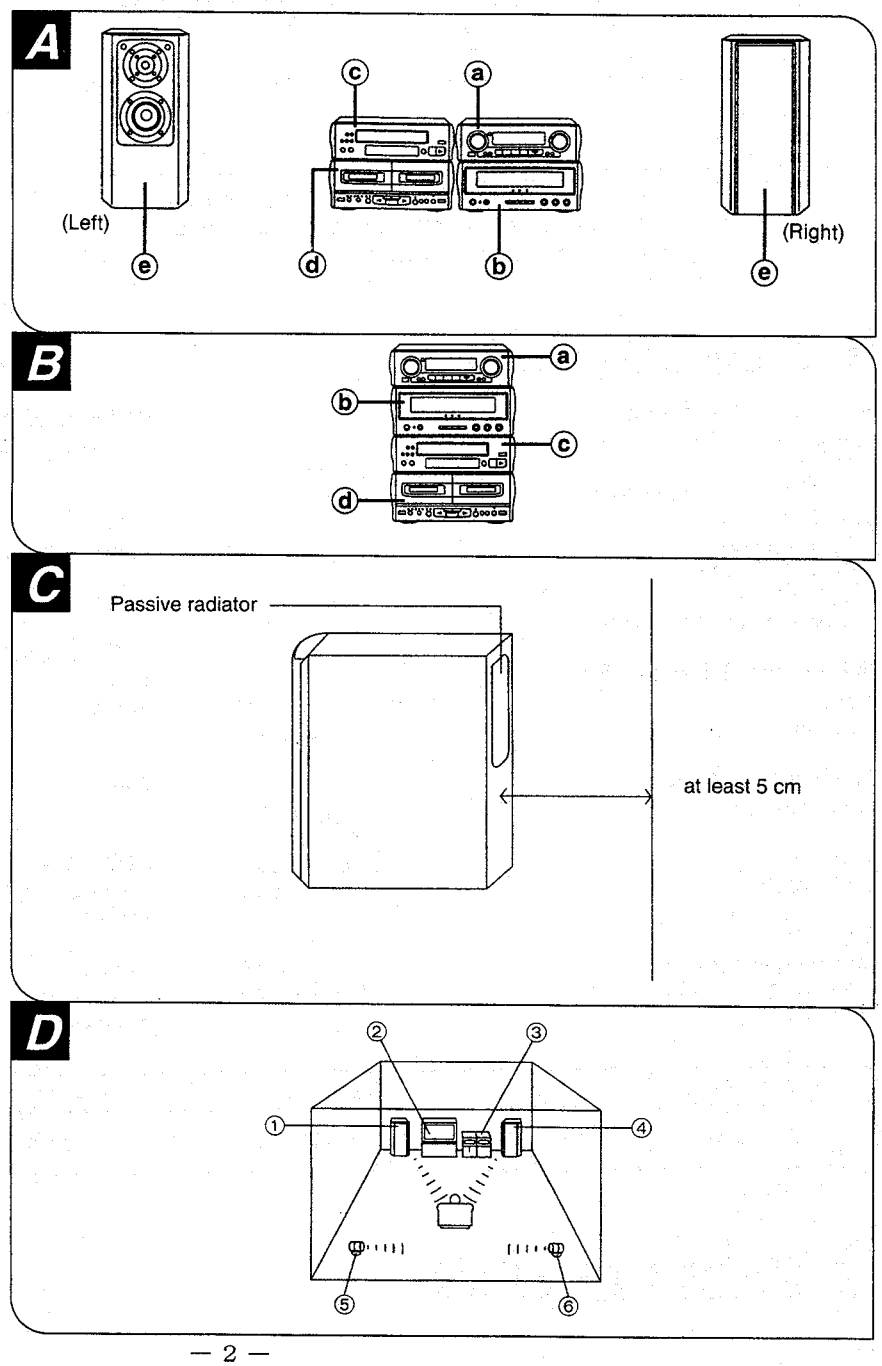
Main unit speaker installation C

Install the main unit speaker at least 5 cm away from the wall so that the augmented bass sound can be passed through the passive radiator.

System layout example D

To produce a better stereo sound, install both speakers away from the system.

① Left speaker
② Television set (not included)
③ This system
④ Right speaker
⑤ Surround speaker (left)
⑥ Surround speaker (right)



■ CONNECTIONS

Connect the AC power supply cord after you have connected all other cables.

1 Connect the flat cables.

Hold the connector with the recessed part up and press in at the center until you hear a click.

1. Connect the shorter flat cable to the terminal of the stereo tuner and power amplifier.
2. Connect the longer flat cable to the terminal of the stereo tuner, compact disc player, and cassette deck.
   Route the cable horizontally (underneath the heat outlet grille) so that the side with the white-color lead is positioned at the front.

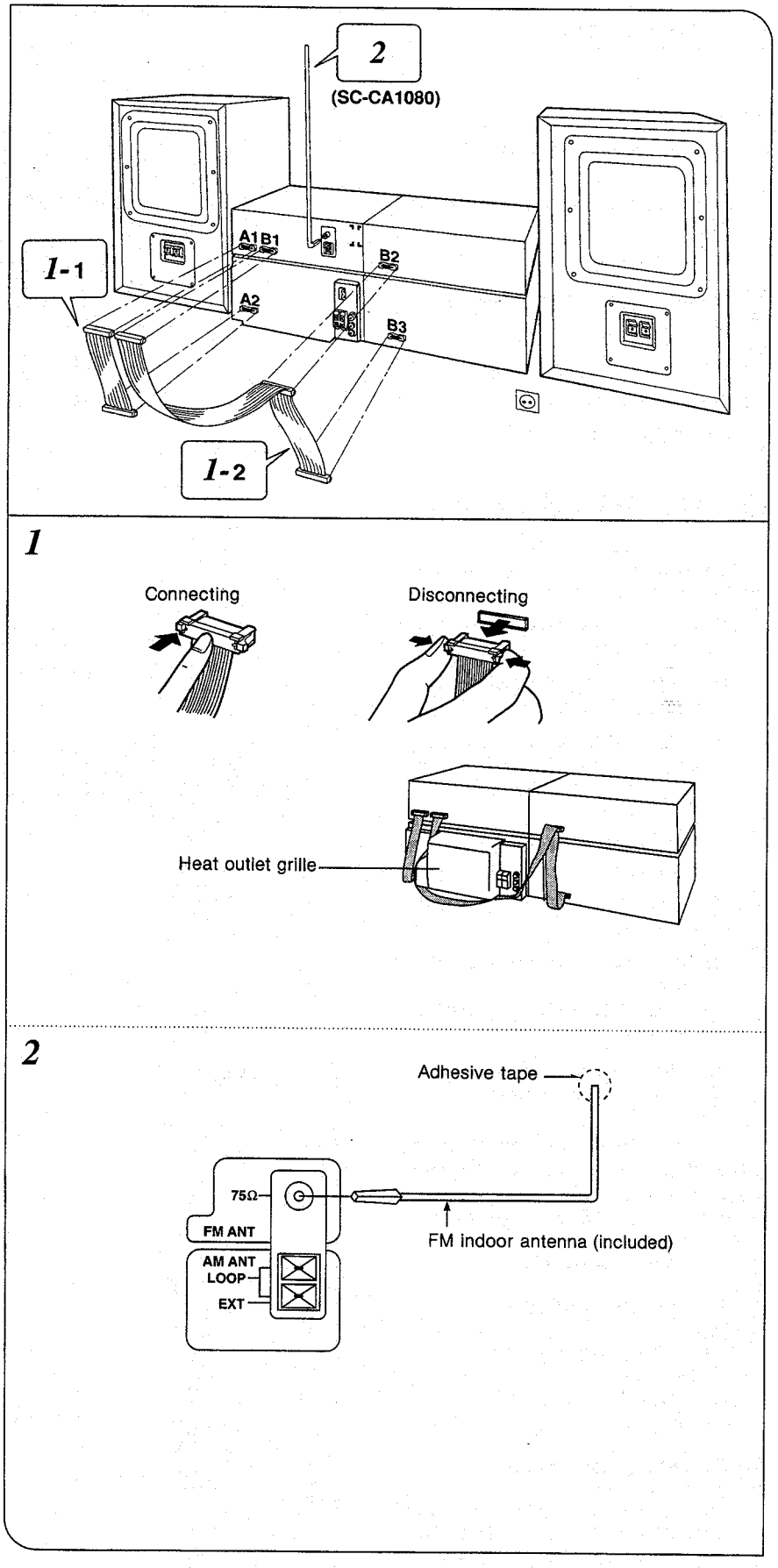
Be sure to connect the blue-colored connector to B1 (tuner/pre-amplifier).
After connection, hold and press the cable as flat to the back of the unit as possible (To minimize noise pickup while listening an AM broadcast).

Do not try connecting or disconnecting the flat cables while the power is switched to ON.

2 Connect the FM indoor antenna.

Install the antenna on a wall at a height and in a direction which result in the best reception.
The tip of the internal antenna wire should not come into contact with any metal objects.
When you cannot get a good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included).

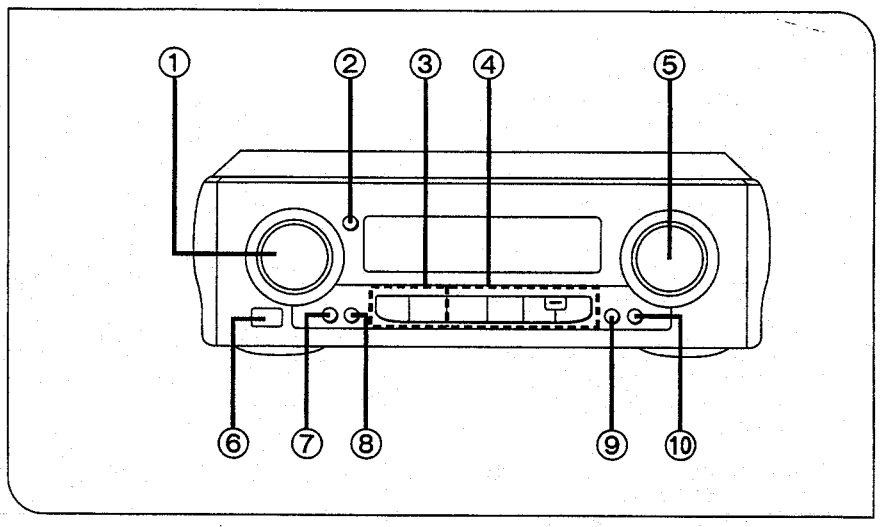
(To be continued)



■ LOCATION OF CONTROLS

Stereo tuner section

① **JOG control**
② **Set button**
③ **External source input select button**
④ **Internal source input select button**
⑤ **Volume control**
⑥ **Remote control signal sensor**
⑦ **Clock/timer button**
⑧ **Tuning mode select button**
⑨ **Record timer button**
⑩ **Play timer button**



■ SETTING THE TIME

This is a 24-hours display clock.
These instructions explain how to set the timer for 16:25 (4:25 p.m.) on Wednesday.

1 **Switch on the power on the power amplifier.**

2 ① **Press CLOCK/TIMER to select "CLOCK".**

- The "CLOCK" display will soon disappear, but you can proceed to the next step within 22 seconds.

② **Press SET.**

3 ① **Turn JOG to select the day.**
② **Press SET.**

4 ① **Turn JOG to select the hour.**
② **Press SET.**

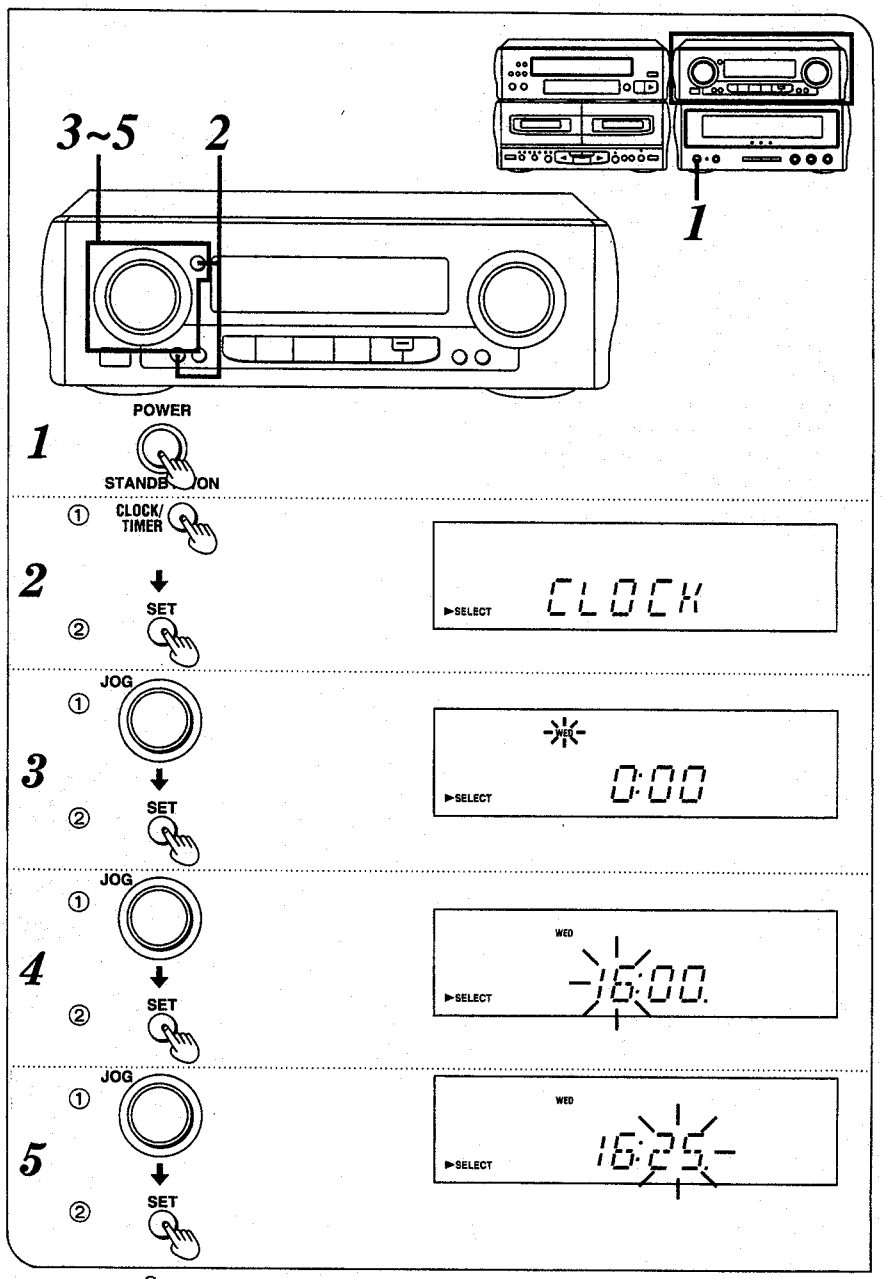
5 ① **Turn JOG to select the minutes.**
② **Press SET to finish setting the time.**

The display will return to the previous display after about 2 seconds.

When "0:00:" flashes on the display:
It appears when you connect the power supply cord for the first time or if there has been a power failure.
If this happens, reset the time.

If the minutes setting has gone wrong:
1. Press CLOCK/TIMER.
2. Press SET 3 times.
3. Turn JOG to set the minute, and then press SET.

To display the clock again:
Press CLOCK/TIMER.
To return to the previous display, press CLOCK/TIMER four times. (or when 22 seconds have passed, the previous display will be returned automatically.)



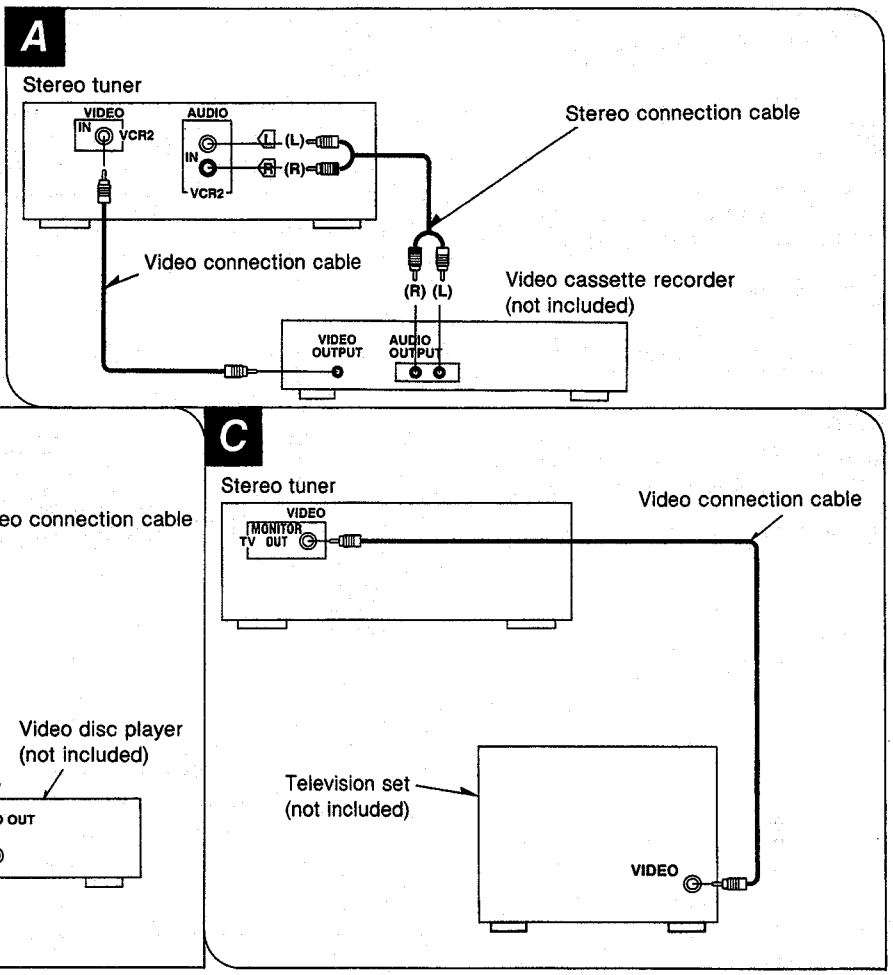
Video casette reocder 2 **A**

VCR 2 is for playback only.

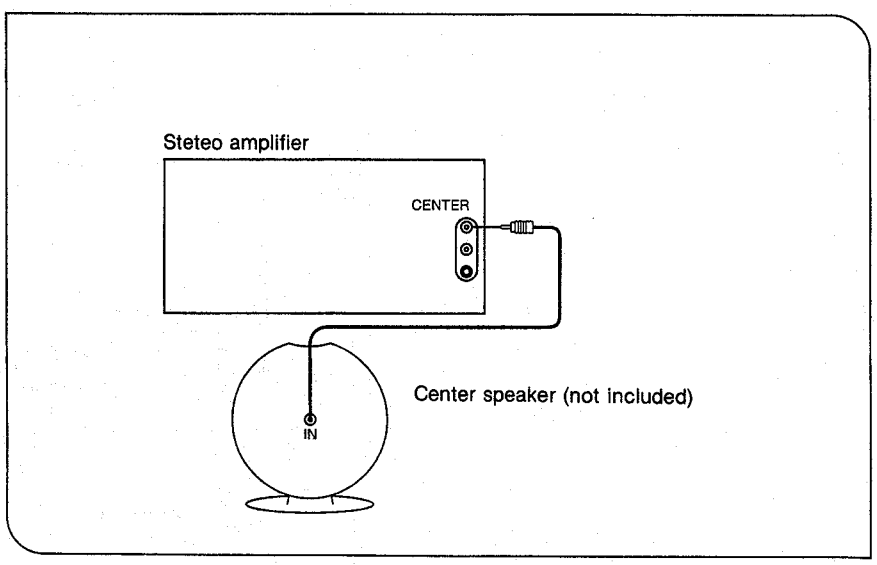
Video disc player **B**

Television set **C**

(To be continued)



Center speaker



External unit connection

DCC (digital compact cassette deck) A

You can make a digital recording on the DCC deck with the optical fiber cable (not included) as shown in the illustration.

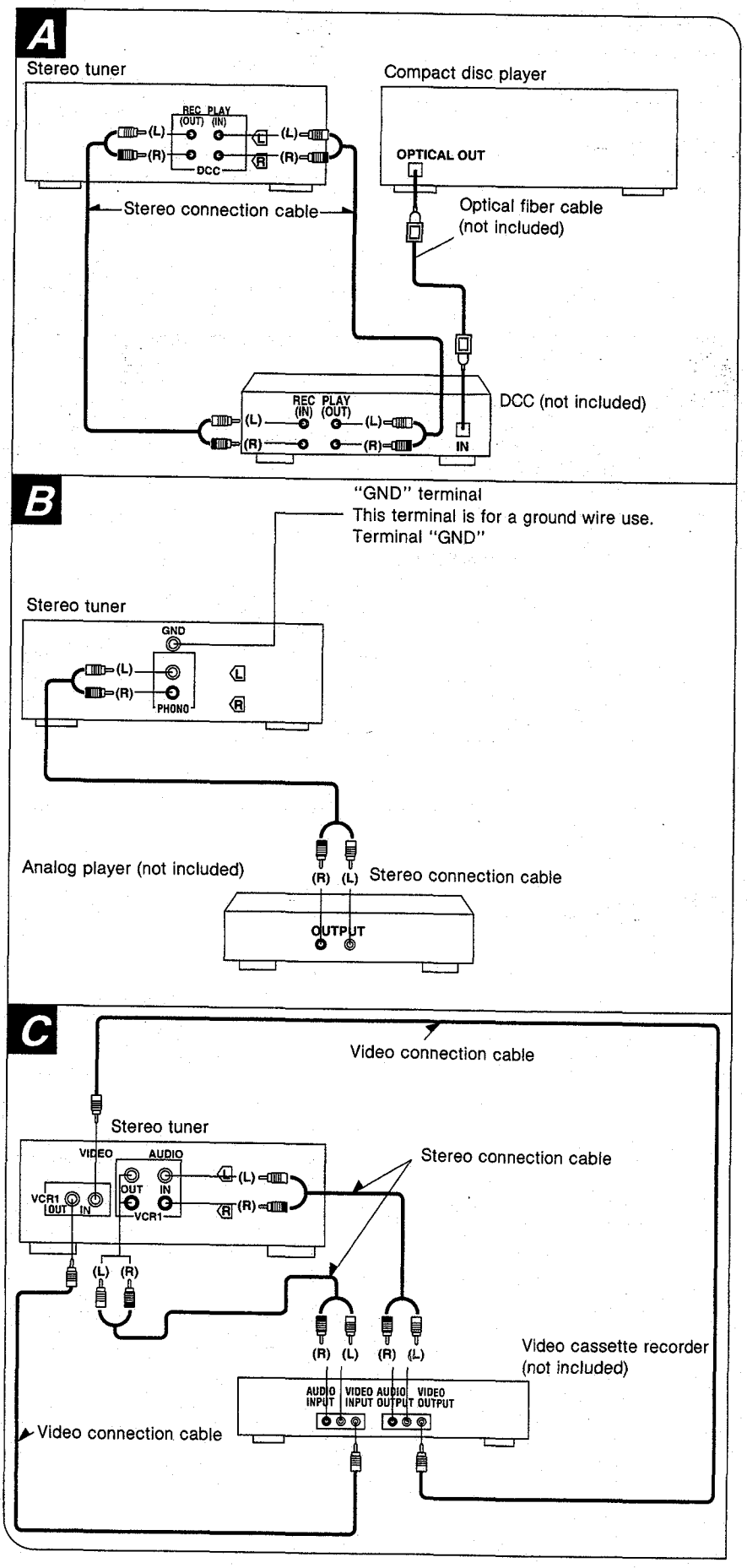
Analog player B

Video cassette recorder 1 C

Note

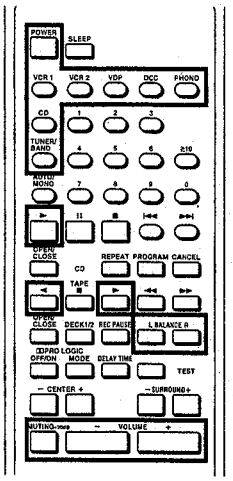
- Stereo connection cable, video connection cable, optical fiber cable—not included

(To be continued)



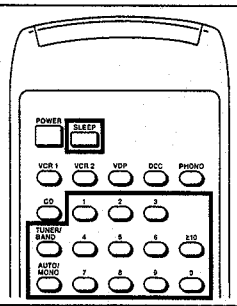
■ QUICK REFERENCE OF REMOTE CONTROL OPERATIONS

Common operation



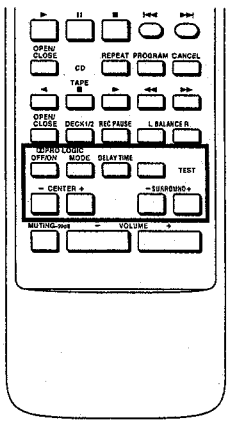
Switching the system on and power standby mode	POWER
Starting play directly from the power standby condition	▶ TUNER/ BAND ◀ ▶
Selecting the input source	VCR 1 VCR 2 VDP DCC PHONO CD
Adjusting the volume	− VOLUME +
Adjusting the volume balance	L BALANCE R
Muting the volume temporarily	MUTING–20dB

Tuner/timer operation



Listening to radio broadcasts	TUNER/ BAND → 1 2 3 4 5 6 ≥10 7 8 9 0
Switching between FM stereo mode and monaural	AUTO/ MONO
Operating/releasing the sleep timer	SLEEP

Dolby Pro-Logic Surround operation



Switching Dolby Pro-Logic Surround mode on or off	OFF/ON
Switching between Dolby Pro-Logic Surround modes	MODE
Adjusting the delay timme	DELAY TIME
Activating the test signal sound	TEST
Adjusting the center speaker level	− CENTER +
Adjusting the surround speaker level	− SURROUND +

■ CONCERNING THE REMOTE CONTROL

Battery installation A

Use of batteries

- Do not mix old and new batteries, or batteries of different types (carbon and alkaline, etc.).
- Never subject batteries to excessive heat or flame; do not attempt to disassemble them; and be sure they are not short-circuited.
- If the remote control is not to be used for a long period of time, remove the batteries and store them in a cool, dark place.
- Do not attempt to recharge alkaline or carbon batteries.

Battery life

The battery life is about one year.

The batteries should be replaced if commands from the remote control transmitter do not operate the unit even when the transmitter is held close to the front panel.

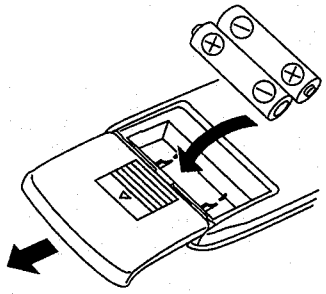
Correct method of use B

Operation notes

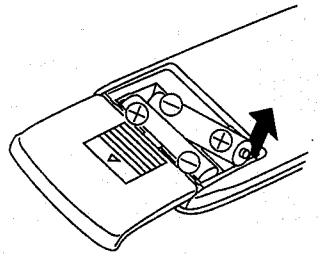
- Aim the remote control's transmission window toward the unit's sensor. Avoid any obstacles.
- Be sure the transmission window and the unit's sensor are free from dust. Excessive dust might affect its performance.
- The operation may not be correct if direct sunlight or other strong light source strikes the receiving sensor of this unit. If there is a problem, place the unit away from the light source.
- If this system is installed in a rack with glass doors, the glass doors' thickness or color might make it necessary to use the remote control a shorter distance from the system.
- Never place heavy items.
- Do not disassemble or reconstruct.
- Do not spill water or other liquids.

A

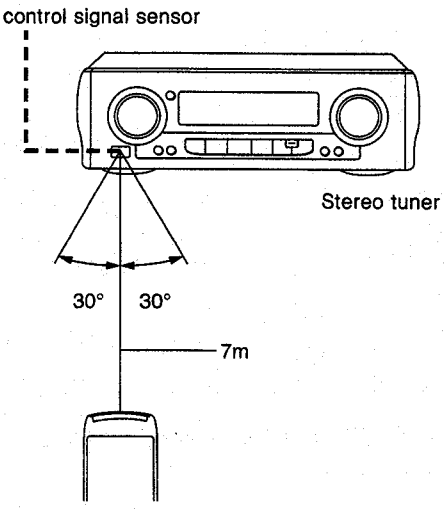
Insert the batteries in the correct polarities (⊕, ⊖).



To remove the batteries, pull out the ⊕ side.



B



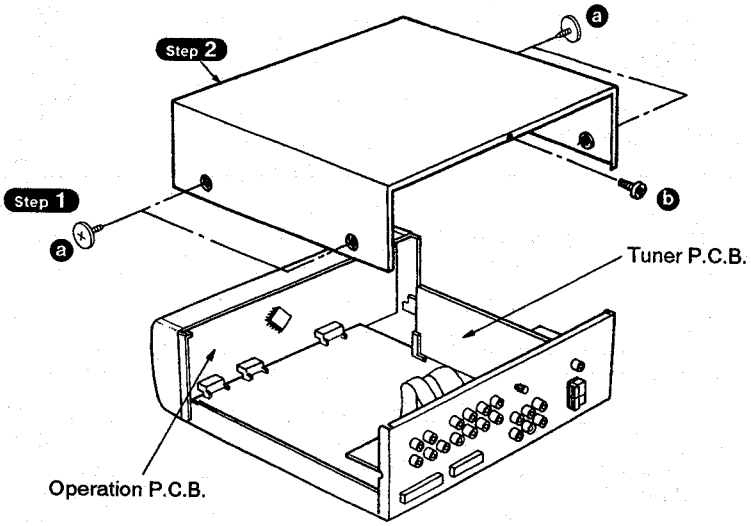
■ OPERATION CHECKS AND MAIN COMPONENT REPLACEMENT PROCEDURES

NOTE 1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.

2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

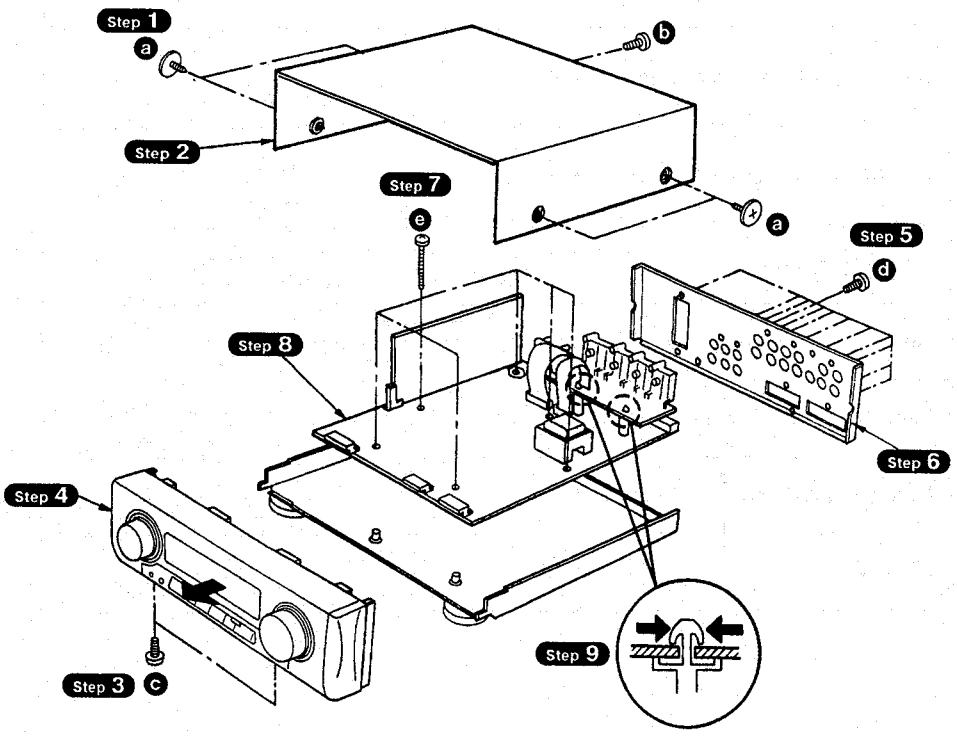
3. Illustrated screws are equivalent to actual size.

1. Checking for the tuner P.C.B. and operation P.C.B.



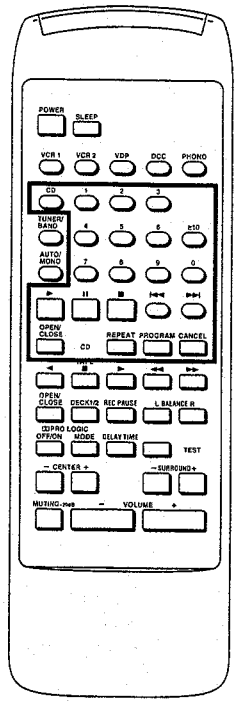
ⓐ (Black) [RHD30007]
ⓑ (Black) [XTB3+8JFZ]

2. Checking for the IN/OUT terminal P.C.B. and main P.C.B.



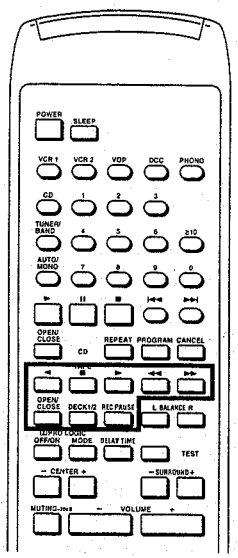
ⓐ (Black) [RHD30007]
ⓑ (Black) [XTB3+8JFZ]
ⓒ, ⓓ (Black) [XTBS3+8JFZ1]
ⓔ (Black) [XTB3+16JFZ]

Compact disc section

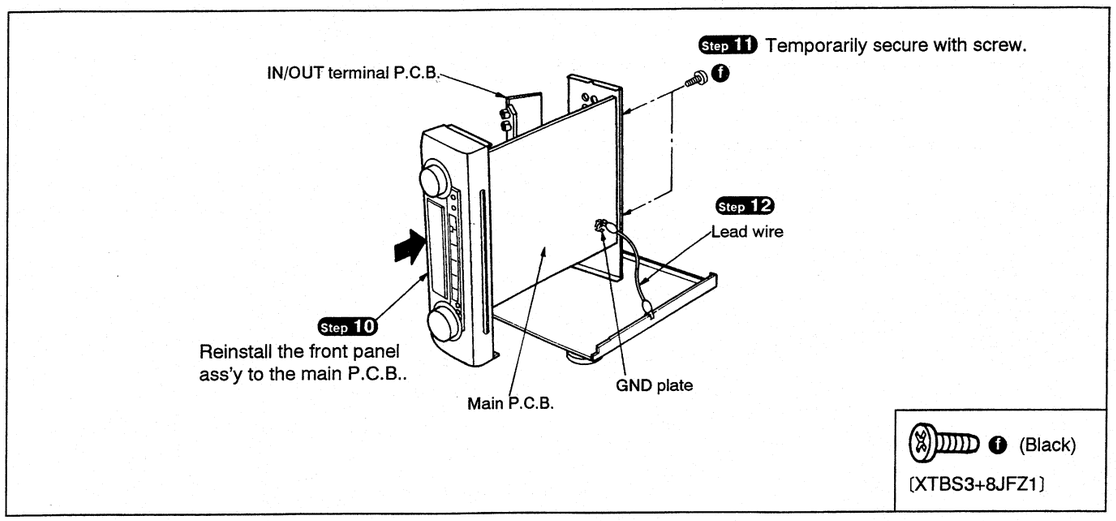


Opening or closing the disc tray	OPEN/ CLOSE
Starting play	►
Temporarily stopping play	II
Stopping play	■
Skipping tracks	⏮ ⏭
Repeating play	REPEAT
Starting play from a particular track	CD → 1 2 3 / 4 5 6 ≥10 / 7 8 9 0
Playing the particular track you programmed	CD → PROGRAM → 1 2 3 / 4 5 6 ≥10 / 7 8 9 0 → ►
Cancelling the particular track you programmed	CD → CANCEL → 1 2 3 / 4 5 6 ≥10 / 7 8 9 0 → CANCEL

Tape section



Switching between deck 1 and deck 2	DECK1/2
Opening or closing the cassette holder	OPEN/ CLOSE
Starting playback	◄ ►
Finding the beginning of a track	During playback / Durante la reproducción ◄◄ ►►
Fast forwarding or rewinding the tape	In stop mode / En el modo de parada ◄◄ ►►
Stopping playback	■
Recording	REC PAUSE → ◄ ►



■ POWER SUPPLY WITH TUNER ST-CA1080

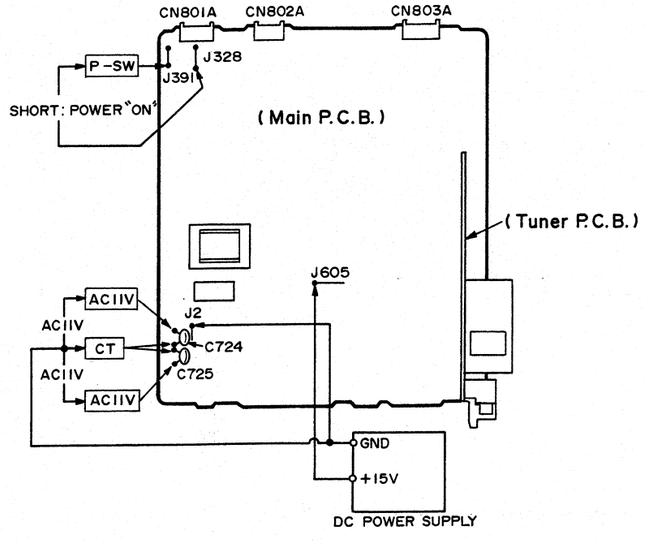
Power Supply to Main PCB

1. Apply 11 V AC power between C724 and C725 using the service tool for AC power supply as shown below.
   (The unit comes to STAND BY Mode.)
2. Short the point [P-SW] (J391) to J328 as shown below.
   FL display tube lights and the unit comes to power ON mode.

Power Supply to Tuner PCB

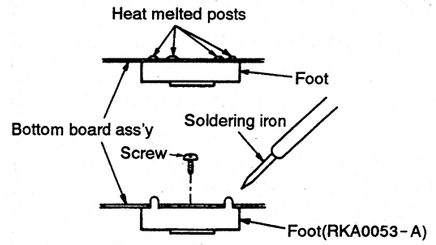
1. Apply 15 V DC power to [J2] and [J605] using the service tool for DC power supply as shown below.

Note: When applying DC power, connect between GND and [CT] using the tool.



■ REPLACEMENT OF THE FOOT

1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0011-3) on the Bottom board ass'y melt the 4 posts with a soldering iron or install it with a screw (XTB3+6J).



■ TERMINAL FUNCTION OF IC

• IC801 (M38173M6276F): System control/FL drive

Pin No.	Terminal Name	I/O	Function
1	CR TIMER	O	Condensor/resistance oscillation terminal for an electronic failure detection
2	KEY2	I	Operation (MULTI CONTROL) key signal input
3	KEY1	I	Operation key signal input
4	/SD	I	SD signal input for tuner
5	/STEREO	I	STEREO signal input for tuner
6	STB• LATCH	O	Latch signal output
7	CE1	O	Chip enable signal output
8	CLK1	O	Clock signal output
9	DATA	O	Data signal output
10	DATA IN	I	Data signal input
11	A. MUTE	O	Audio muting signal output (Volume of −10dB and less: "H")
12	MUTE	O	Main muting signal output (Normally "L")
13	CLK2	O	Serial clock output
14	CLK3	O	Serial data output
15	B.DATA IN	I	Data input from bus
16	B.CLK IN	I	Clock input from bus
17	B.DATA OUT	O	Data output to bus (Normally "H")
18	B. CLK OUT	O	Clock output to bus (Normally "L")
19	CHECK & SURR	O	POWER ON mode: Output for SUR ON/OFF (During POWER ON: "H") POWER OFF mode: Demultipler output for clock control
20	POWER & IJO	I/O	Power control output (During POWER ON: "H") Heat detection input (Unusual situation: "H")
21	/TUNER	O	Audio muting 2 signal output (Volume of −70dB and less: "H")
22	TUNER	O	Selector TUNER output (Output in level: "H")
23	VR. JOG B	I	Rotary encoder input for main volume
24	VR. JOG A		
25	RC	I	Input for remote control
26	AC IN	I	AC power source input terminal for an electricity failure/clock

Pin No.	Terminal Name	I/O	Function
27	/RESET	I	Reset input terminal
28	10V	I	Power source for pull up (+10V)
29	NC	–	Not connection
30	XIN	I	Connected to a seramic oscillator for system clock X801 (4.194304MHz)
31	XOUT	O	
32	V_{SS}	–	Connected to GND
33	MIC DET	I	Input for MIC detection (Connection: "L")
34	CS2	I	Input for chip selection
35	CS1		
36	TU. JOG B	O	Rotary encoder input for tuning volume
37	TU. JOG A	O	Rotary encoder input for tuning volume
38	S. MUTE	O	Not used, open
39	C. MUTE	O	Not used, open
40	SURR	O	Not used, open
41 ∫ 50	1G ∫ 2G	O	Grid output for FL display
51 ∫ 67	P17 ∫ P1	O	Segment signal of FL display
68	CLK4	O	Serial data output
69 ∫ 72	V.BASS CONT4 CONT3 CONT1	–	Not used, connected to power supply
73	V_{DD} BACK-UP	I	+5V impression
74	VP	–	−VP impression for FL display
75	D. GND	–	Connected to GND
76	VREF	–	Standard voltage for A/D converter (Connected to V_{CC})
77	TU. MUTE	O	Muting control terminal
78 • 79	CE3 • CE2	O	Chip enable terminal
80	NC	–	Not connection

■ SCHEMATIC DIAGRAM

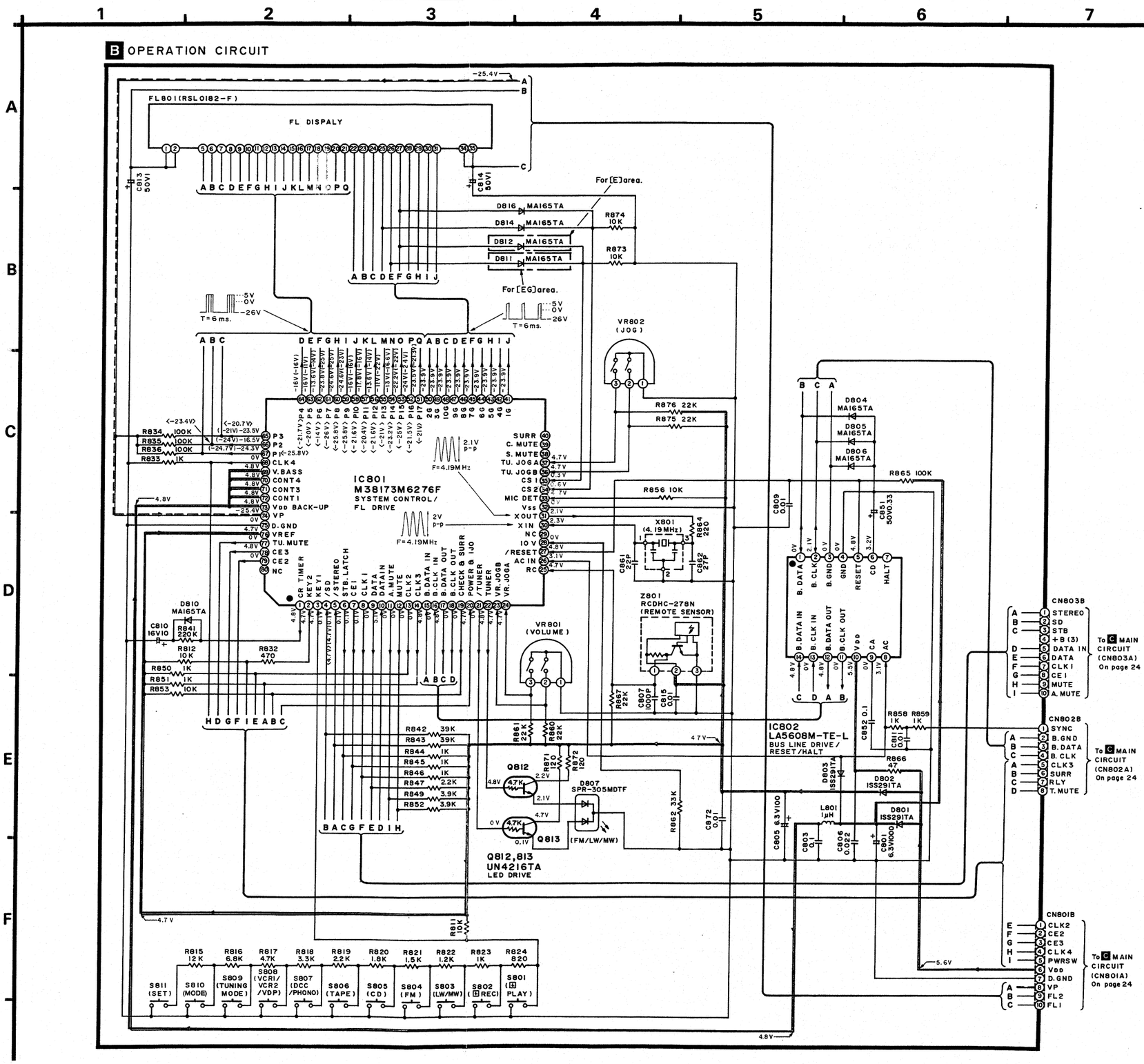
(Parts list of pages 33~37.)

(This schematic diagram may be modified at any time with the development of new technology.)

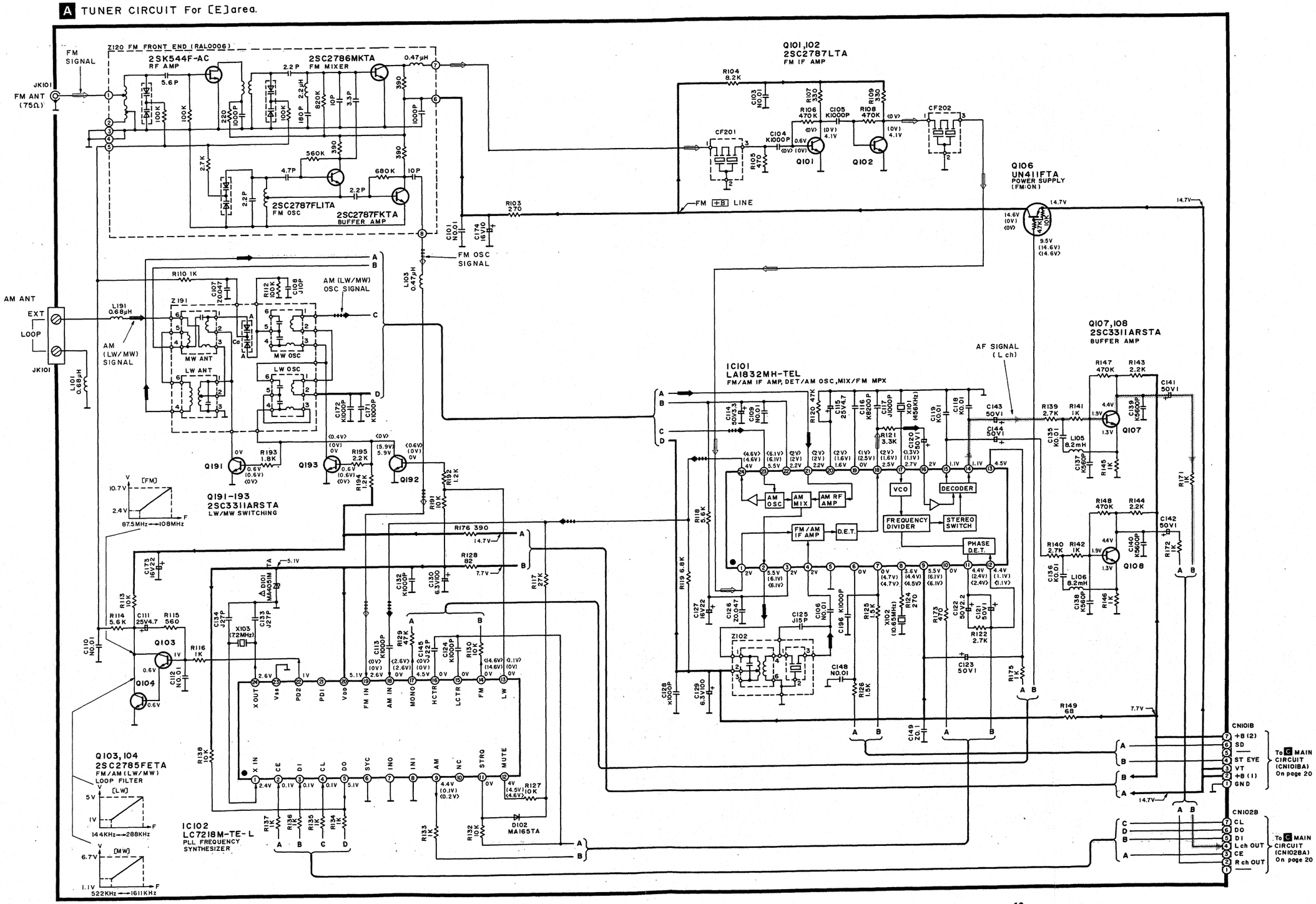
Notes 1:

- **S801** : Play timer (PLAY) switch.
- **S802** : Record timer (REC) switch.
- **S803** : LW/MW (LW/MW) switch.
- **S804** : FM (FM) switch.
- **S805~807** : Internal source input select switches. [S805: CD, S806: TAPE, S807: DCC/PHONO]
- **S808** : External source input select (VCR 1/VCR 2/VDP) switch.
- **S809** : Tuning mode select (TUNING MODE) switch.
- **S810, 811** : Clock/Timer (CLOCK/TIMER) switches. [S810: MODE, S811: SET]
- Signal line
  - : REC out signal (Lch)
  - : AM (LW/MW) OSC signal
  - : AM (LW/MW) signal
  - : Positive voltage lines
  - : Negative voltage lines
  - : FM OSC signal
  - : FM signal
  - : AF signal (Lch)
  - : Surround speaker drive signal
  - : Center speaker drive signal
- Important safety notice
  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used as occation calls. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
- All voltage values shown in circuitry are DC voltage in FM signal (Stereo mono) reception mode.
- ∗Figures in ( ) Stand for DC-voltage in MW signal reception mode.
- ∗Figures in 〈 〉 Stand for DC-voltage in LW signal reception mode.
- ∗Figures in ▭ Stand for DC-voltage in muting mode.

- **Caution!**
  IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with alminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

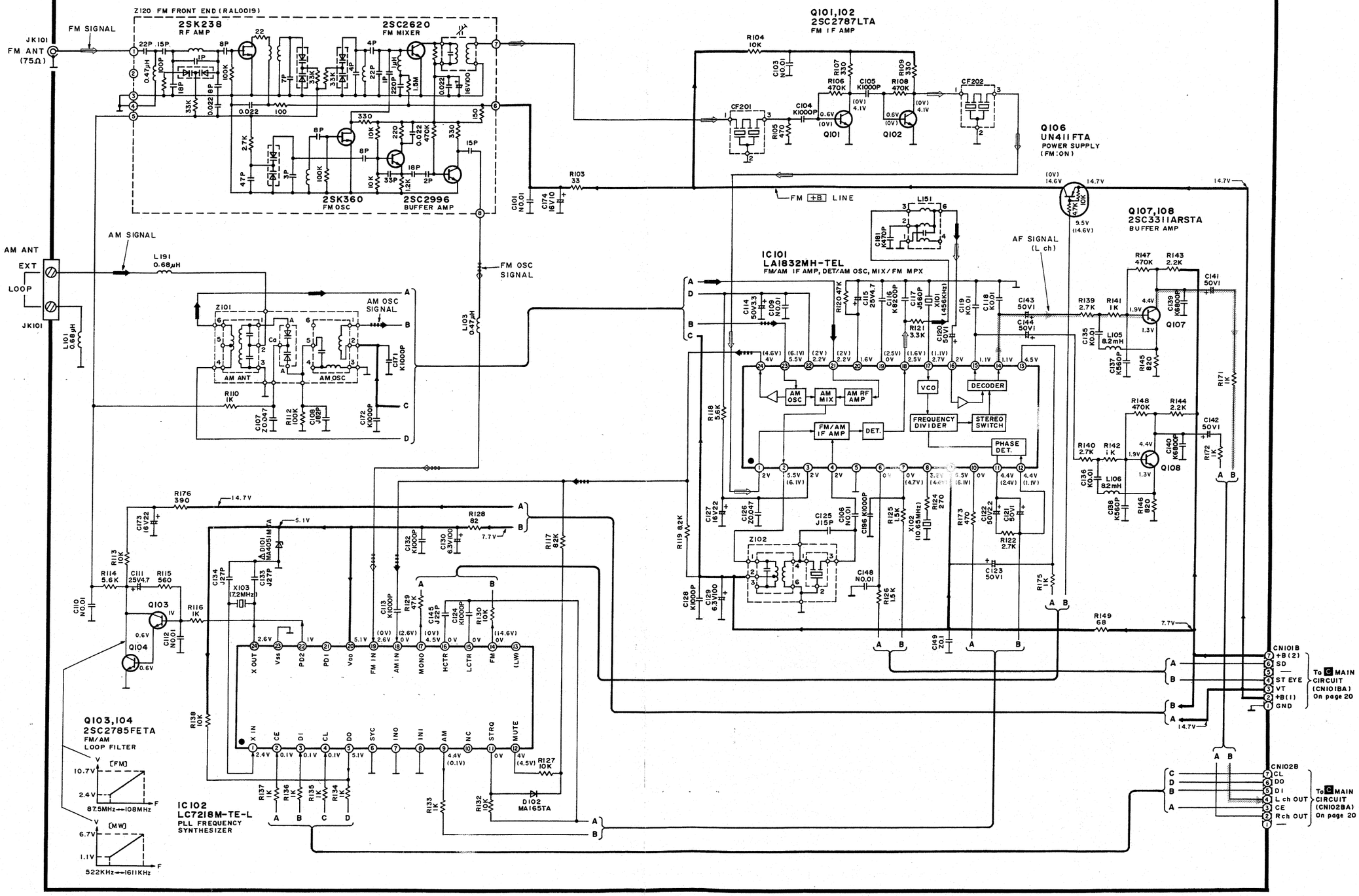


A TUNER CIRCUIT For [E]area.



18 19 20 21 22 23 24 25 26 27

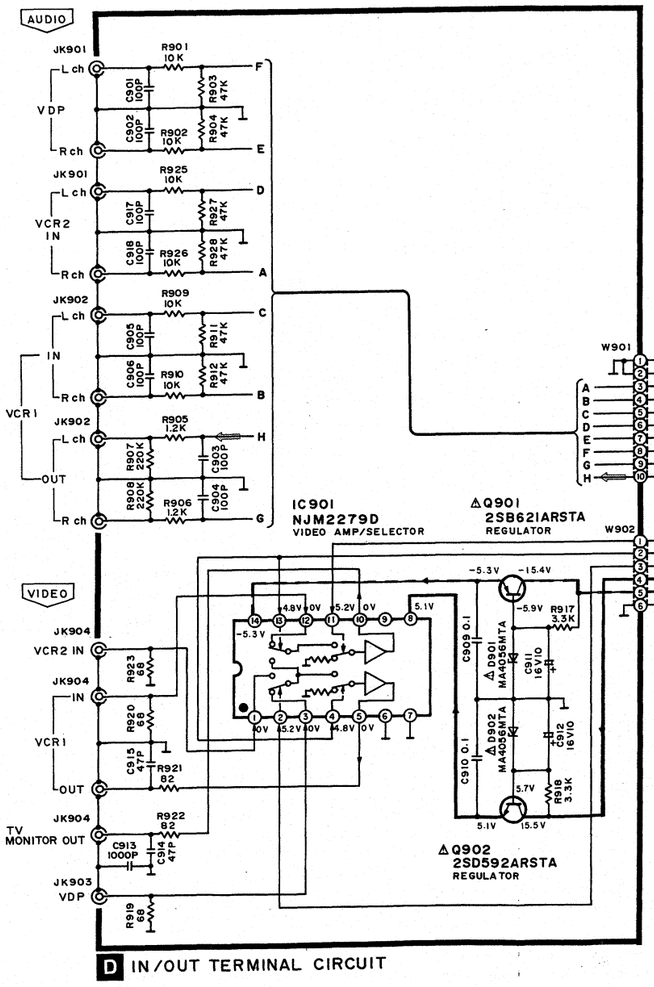
A TUNER CIRCUIT For [EG]area.



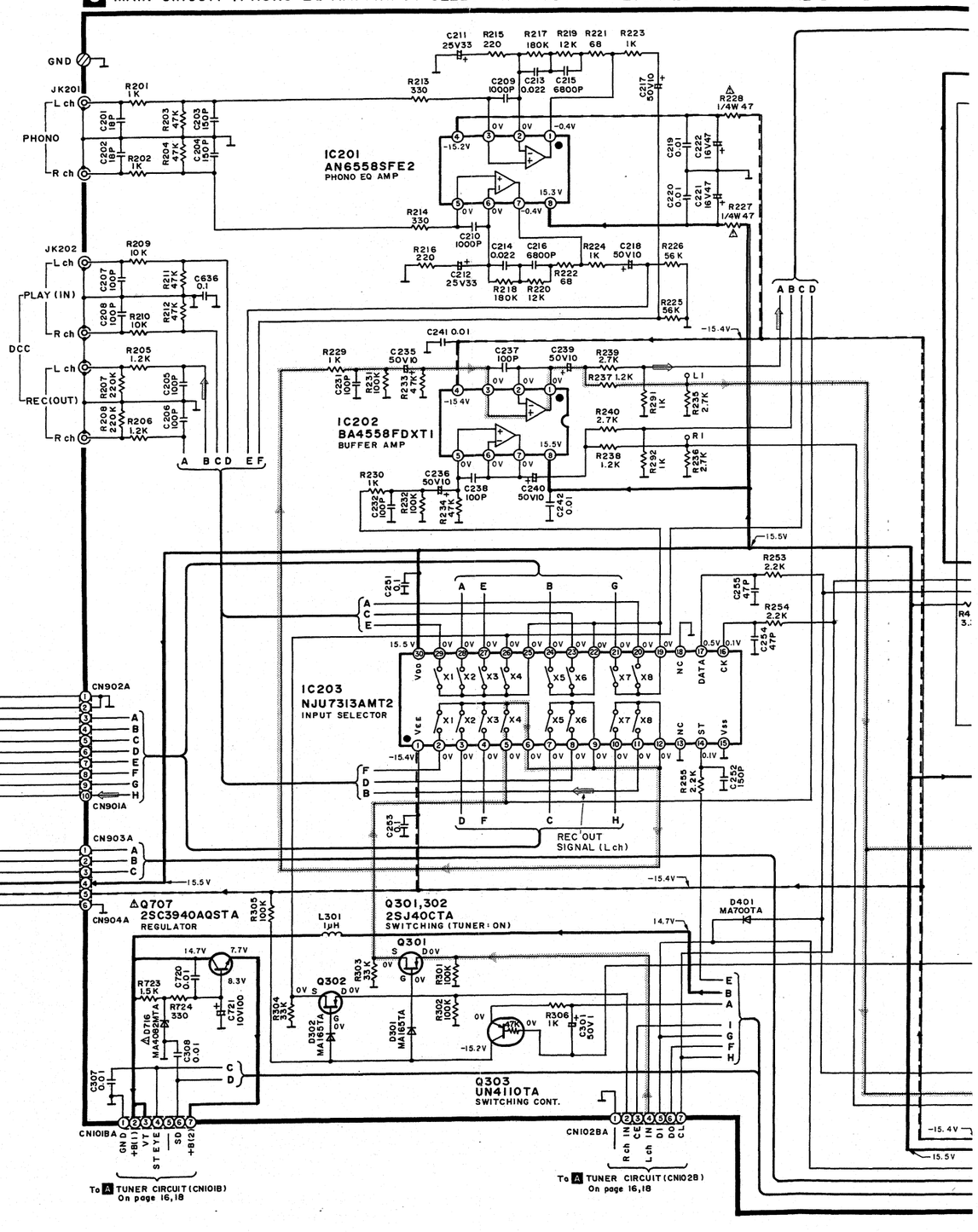
Notes 2:

- Signal line
  - : REC out signal (Lch)
  - : AM (LW/MW) OSC signal
  - : AM (LW/MW) signal
  - : Positive voltage lines
  - : Negative voltage lines
  - : FM OSC signal
  - : FM signal
  - : AF signal (Lch)
  - : Surround speaker drive signal
  - : Center speaker drive signal
- Important safety notice
  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used as occation calls. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
- All voltage values shown in circuitry are DC voltage in FM signal (Stereo mono) reception mode.
- ＊Figures in ( ) Stand for DC-voltage in MW signal reception mode.
- ＊Figures in 〈 〉 Stand for DC-voltage in LW signal reception mode.
- ＊Figures in ▭ Stand for DC-voltage in muting mode.

- **Caution!**
  IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with alminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.



D IN/OUT TERMINAL CIRCUIT



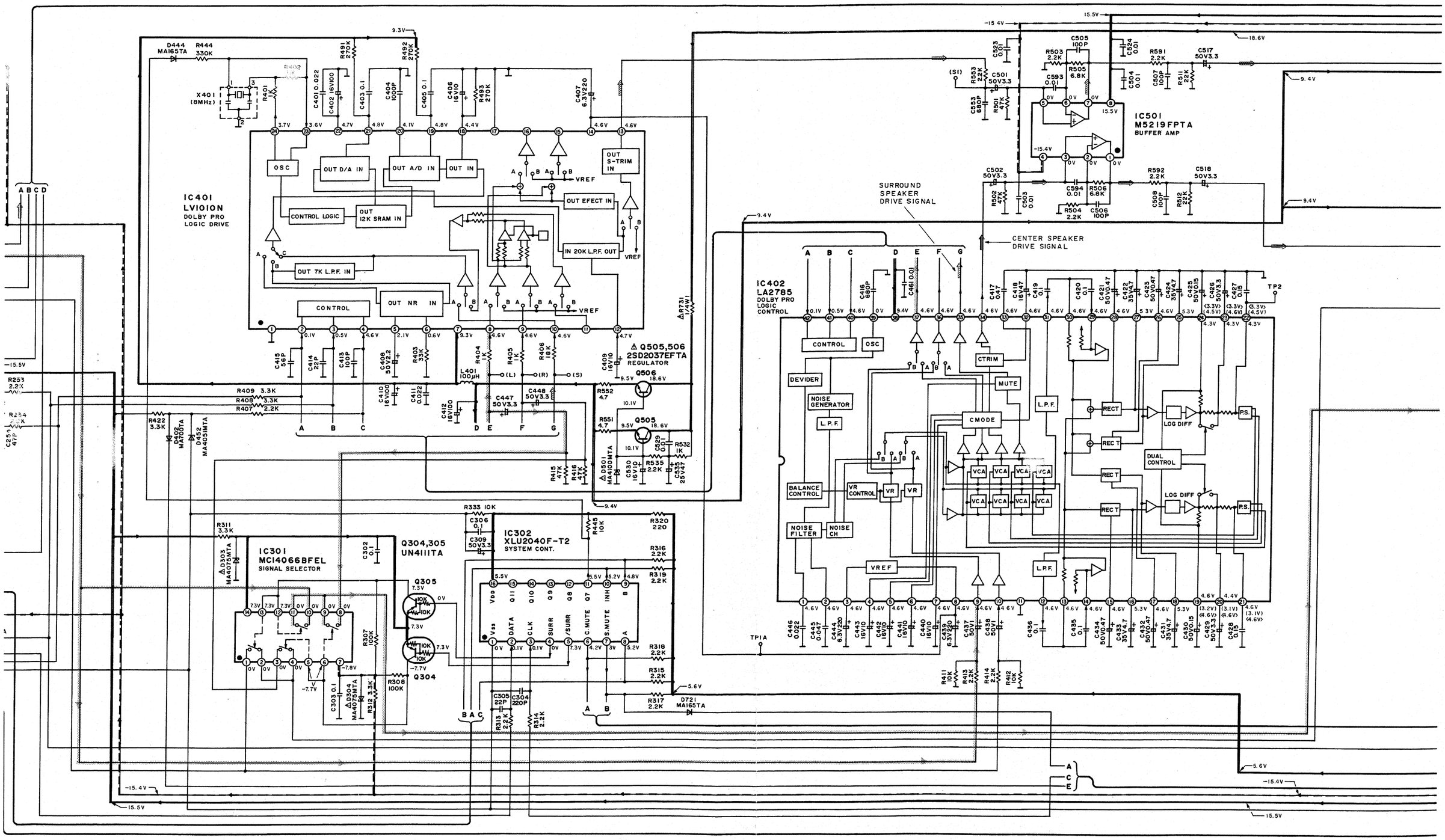
To A TUNER CIRCUIT (CN101B) On page 16,18

To A TUNER CIRCUIT (CN102B) On page 16,18

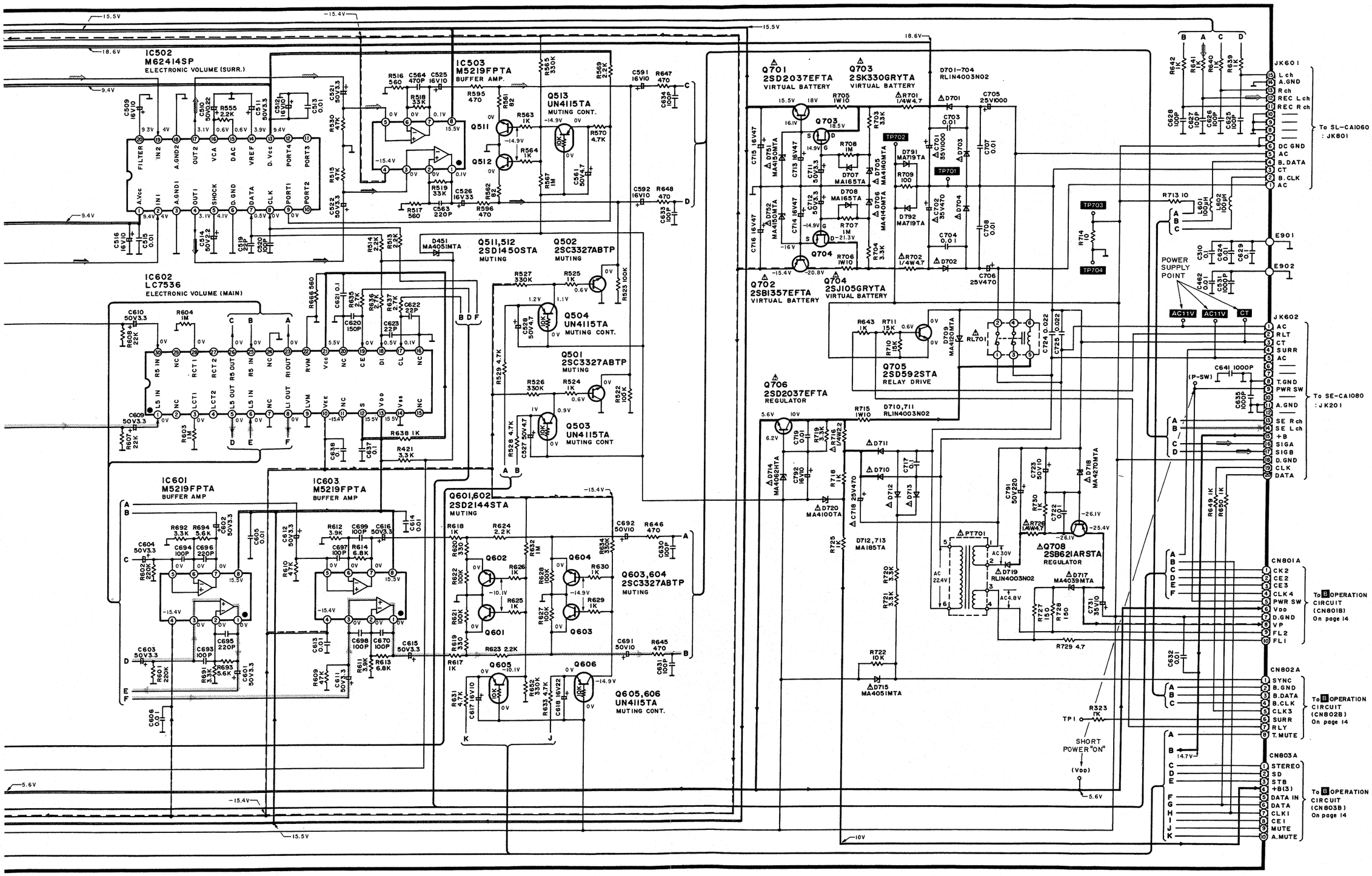
C MAIN CIRCUIT (PHONO EQ AMP/INPUT SELECTOR/DOLBY PRO LOGIC ELECTRIC VOLUME BUFFER AMP/MUT

10 11 12 13 14 15 16 17 18 19

VOLUME BUFFER AMP/MUTING REGULATOR)



20 21 22 23 24 25 26 27 28 29

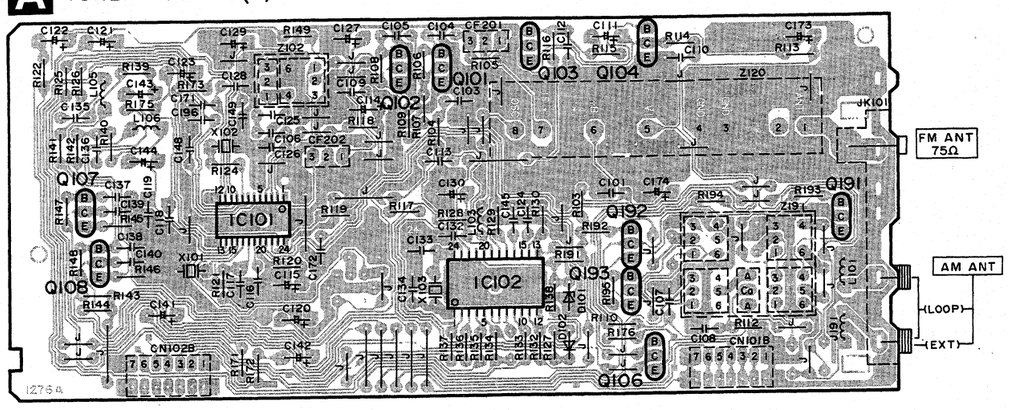


1 2 3 4 5 6 7 8 9 10

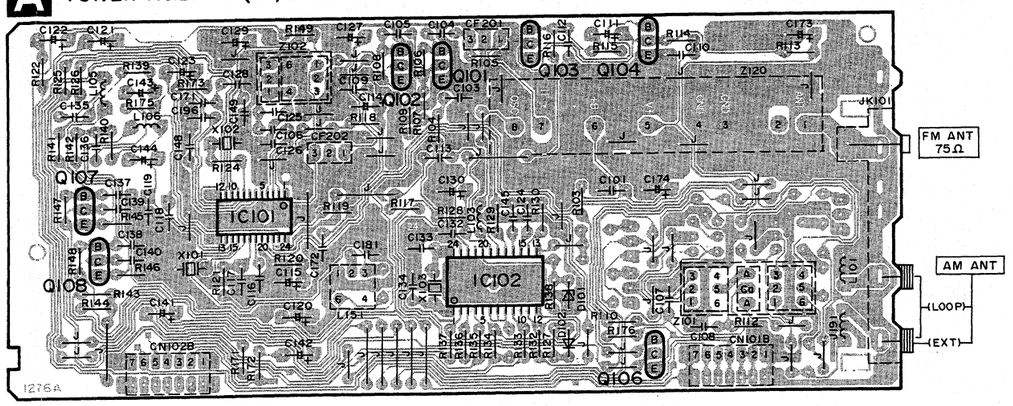
A B C D E F G

■ PRINTED CIRCUIT BOARDS

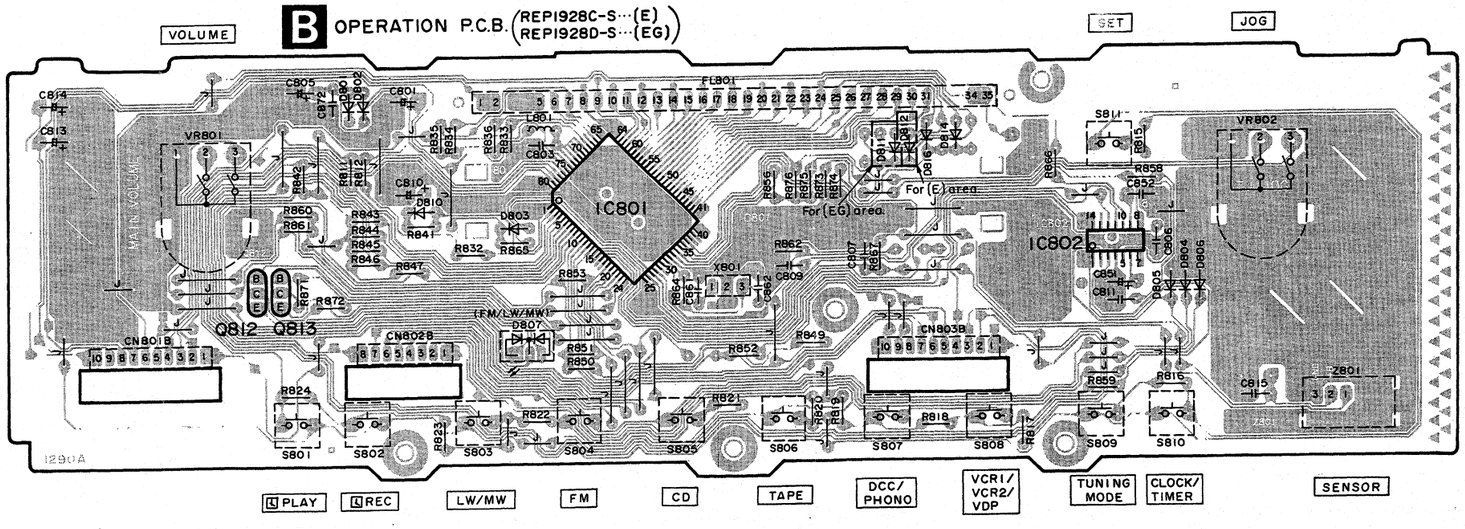
A TUNER P.C.B. For (E) area. (REPI930A-T)



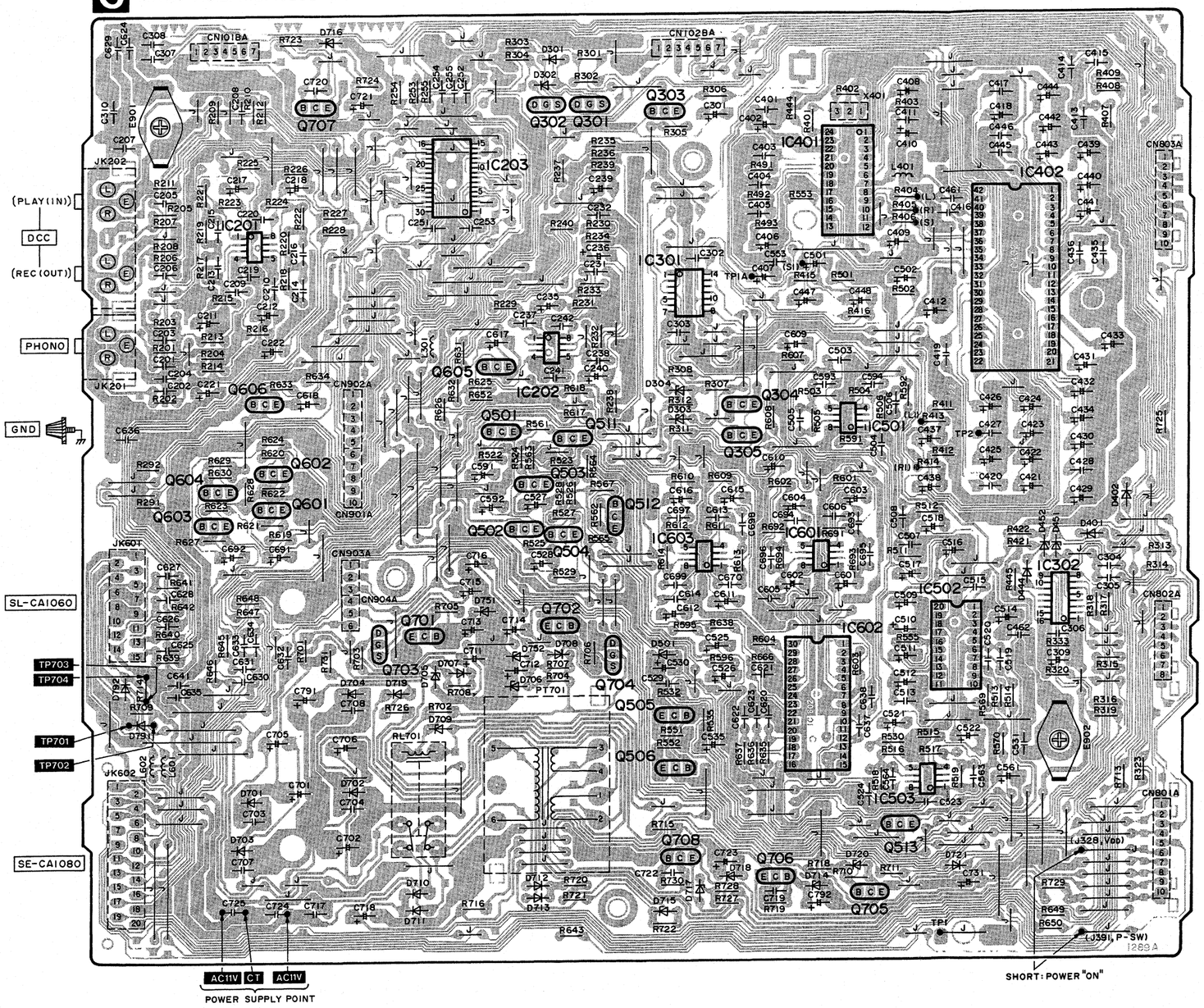
A TUNER P.C.B. For (EG) area. (REPI930B-T)



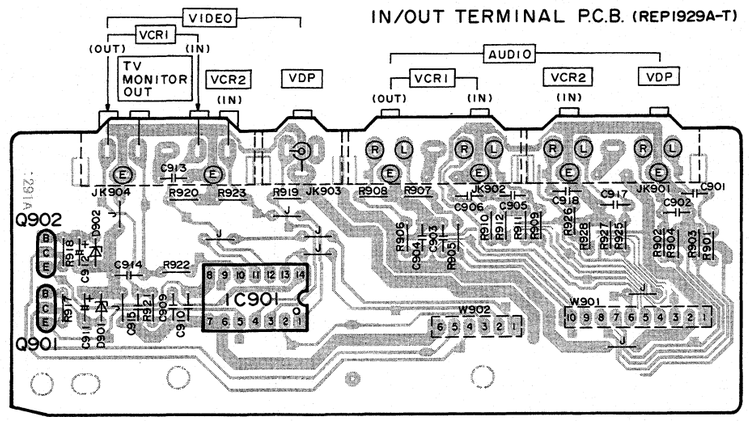
B OPERATION P.C.B. (REPI928C-S···(E) / REPI928D-S···(EG))



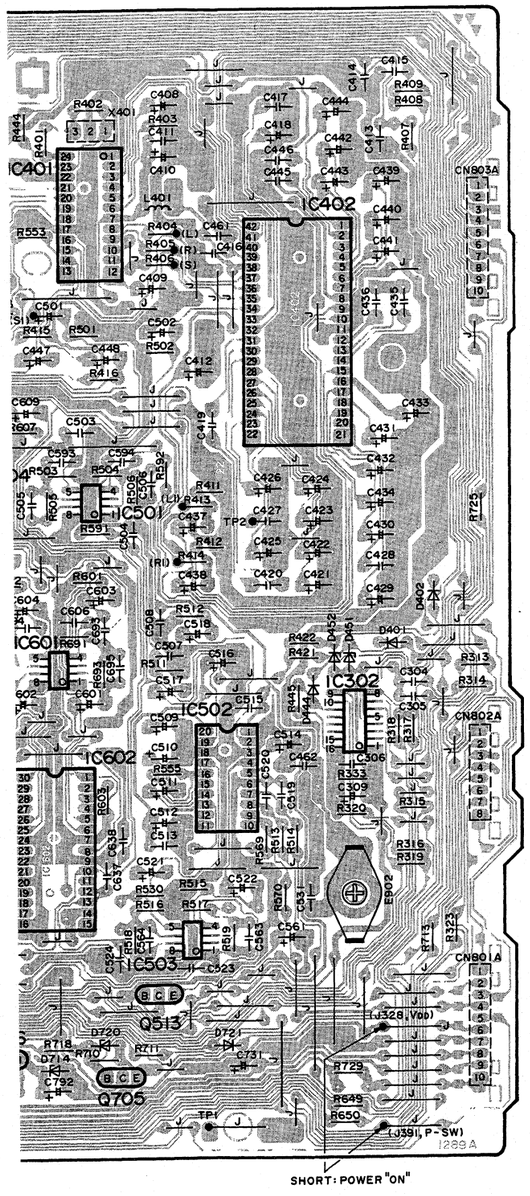
C MAIN P.C.B. (REPI926B-M)



D IN/OUT TERMINAL P.C.B. (REPI929A-T)

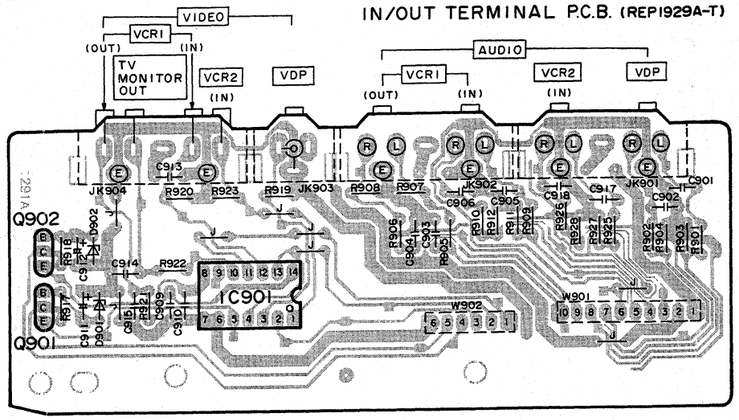


15 16 17 18 19



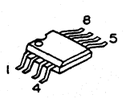
SHORT: POWER "ON"

D IN/OUT TERMINAL P.C.B. (REP1929A-T)

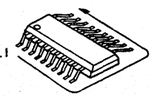


■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

BA4558FDXT1

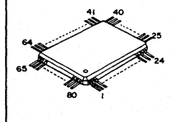


No. 1

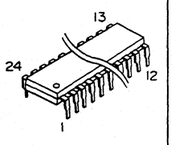


M5219FPTA	8 Pin	LA1832MH-TEL	24 Pin
AN6558SFE2	8 Pin	LC7218M-TE-L	24 Pin
MC14066BFEL	14 Pin	NJU7313AMT2	30 Pin
LA5608M-TE-L	14 Pin		
XLU2040F-T2	16 Pin		

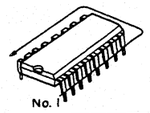
M38173M6276F



LV1010N

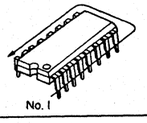


M62414SP	20 Pin
LA2785	42 Pin

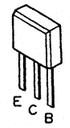


No. 1

NJM2279D	14 Pin
LC7536	30 Pin

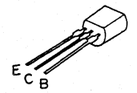


No. 1



UN411FTA
UN4110TA
UN4111TA
UN4115TA
UN4216TA
2SC2785FETA
2SC2787LTA
2SC3311ARSTA
2SD1450STA

2SB621ARSTA
2SD592STA
2SD592ARSTA



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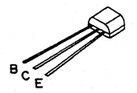

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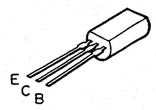
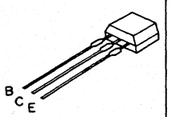
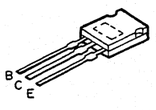


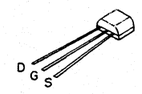
2SD2144STA



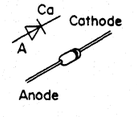
2SB1357EFTA
2SD2037EFTA



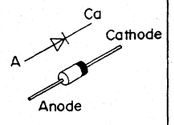
2SJ40CTA
2SJ105GRYTA
2SK330GRYTA



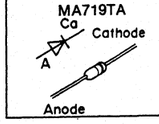
MA165TA



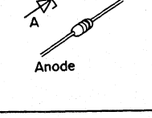
RL1N4003N02

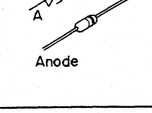


1SS291TA
MA185TA
MA700TA
MA719TA



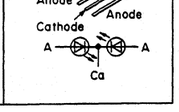
MA4039MTA
MA4051MTA
MA4056MTA
MA4062HTA
MA4075MTA
MA4082MTA



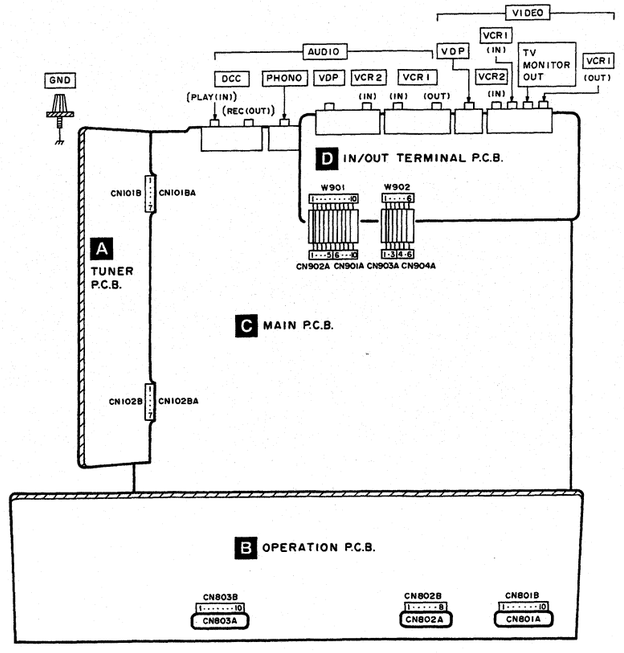


MA4100MTA
MA4120MTA
MA4140MTA
MA4150MTA
MA4270MTA

SPR-305MDTF



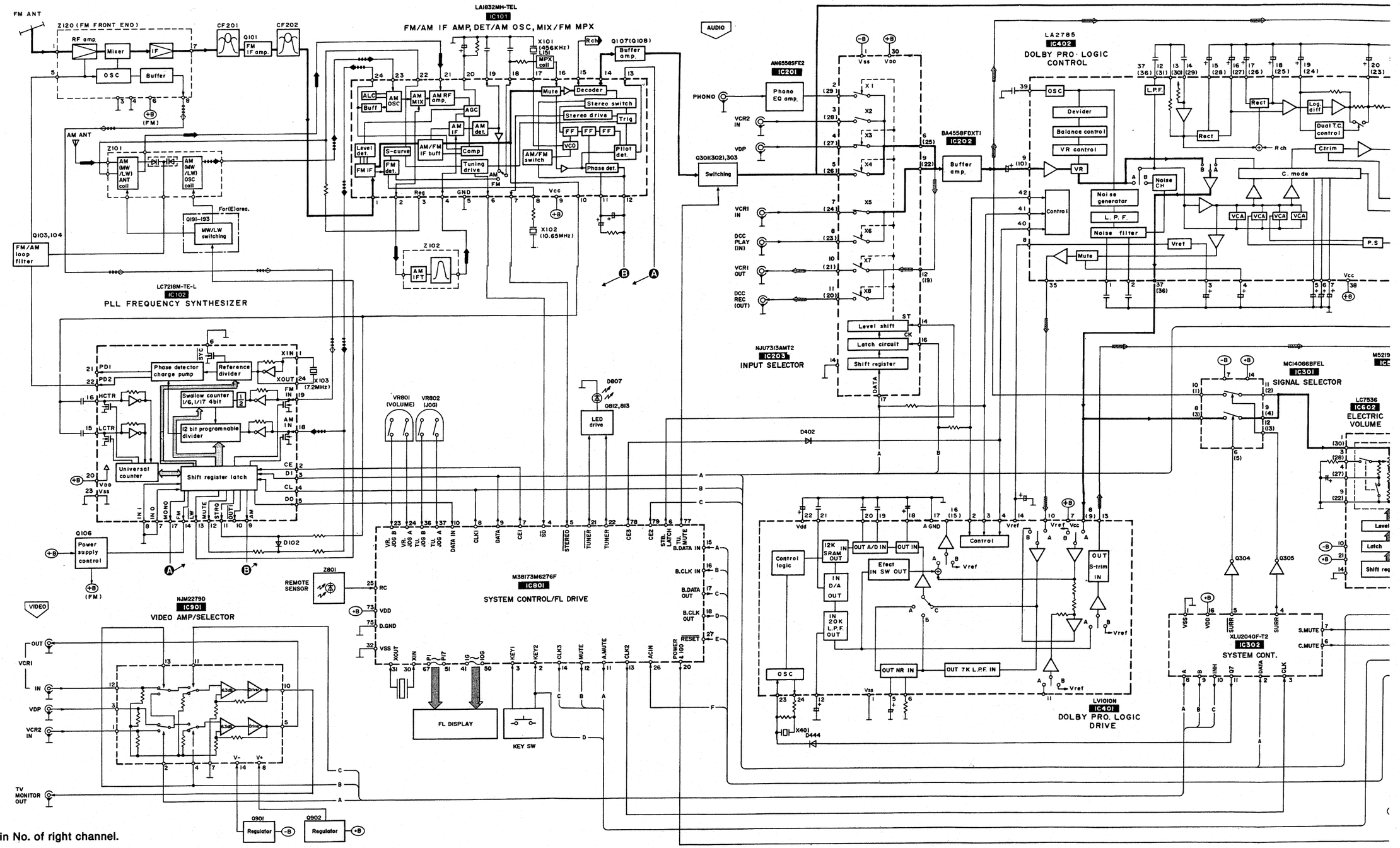
■ WIRING CONNECTION DIAGRAM



ANA-07037 / DRUCK 10

ST-CA1080 ST-CA1080

■ BLOCK DIAGRAM

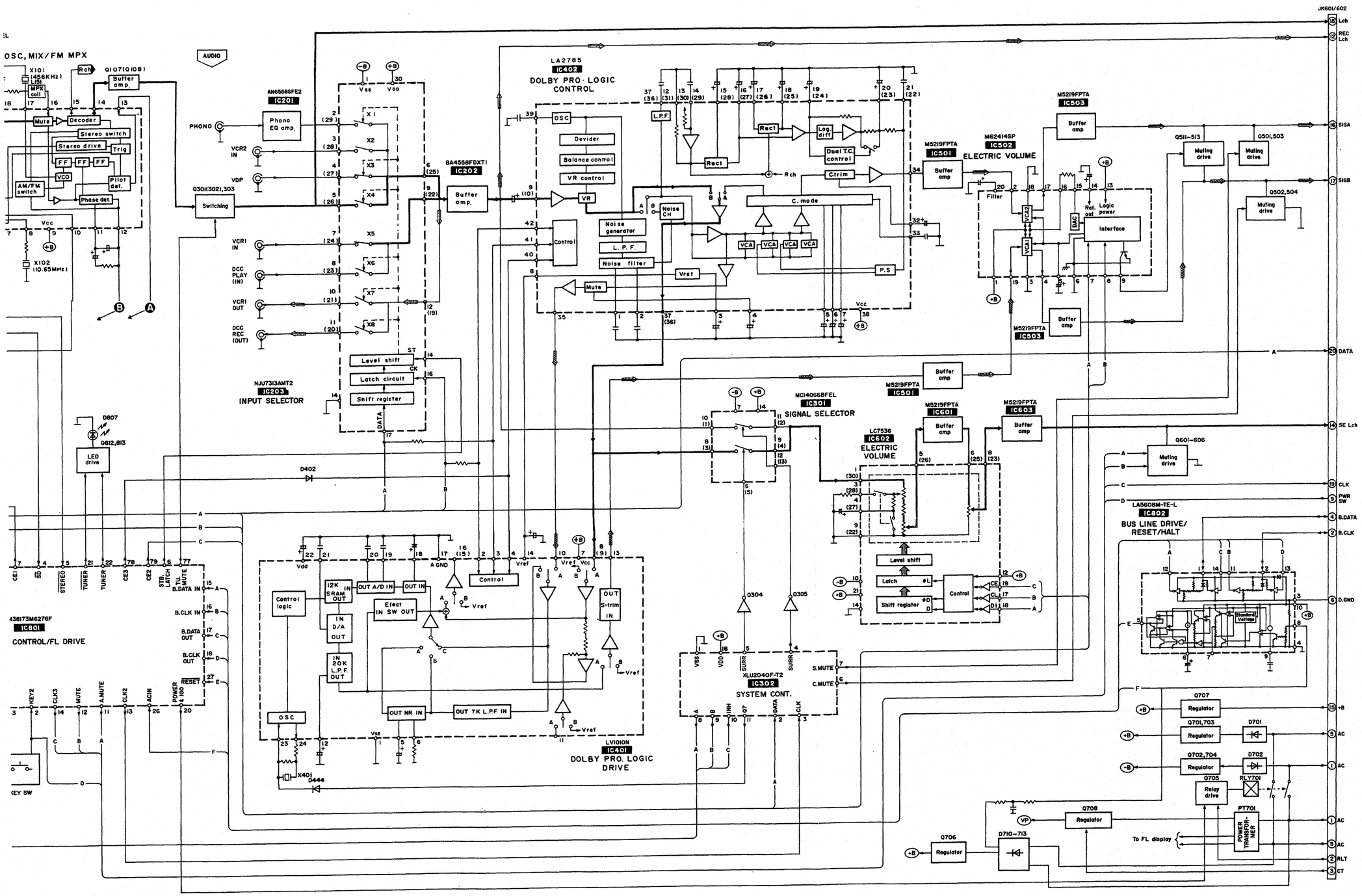


Notes:

1) ( ) indicates Pin No. of right channel.

2)

- : AF SIGNAL
- : FM SIGNAL
- : AM (LW/MW) SIGNAL
- : FM OSC SIGNAL
- : AM (LW/MW) SIGNAL
- : REC OUT SIGNAL
- : SURROUND SPEAKER DRIVE SIGNAL
- : CENTER SPEAKER DRIVE SIGNAL


OSC, MIX/FM MPX
X101 (456KHz)
MPX coil
Buffer amp.
Q107(Q108)
Mute
Decoder
Stereo switch
Stereo drive
Trig
FF
VCO
Pilot det.
AM/FM switch
Phase det.
X102 (10.65MHz)
AUDIO
AN6558SFE2
IC201
Phono EQ amp.
PHONO
VCR2 IN
VDP
Q301(302),303
Switching
BA4558FDXTI
IC202
Buffer amp.
VCR1 IN
DCC PLAY (IN)
VCR1 OUT
DCC REC (OUT)
Level shift
Latch circuit
Shift register
NJU7313AMT2
IC203
INPUT SELECTOR
D807
Q812,813
LED drive
D402
D444
X401
LA2785
IC402
DOLBY PRO·LOGIC CONTROL
OSC
Devider
Balance control
VR control
Control
Noise generator
L.P.F.
Noise filter
Noise CH
Vref
Mute
C. mode
VCA
P.S
LPF
Rect
Log. diff
Dual T.C. control
C.trim
Rch
M52195FPTA
IC501
Buffer amp
M62414SP
IC502
ELECTRIC VOLUME
Filter
VCAD
VCAI
DAC
Ref. out
Logic power
Interface
M52195FPTA
IC503
Buffer amp
Q511~513
Muting drive
Q501,503
Q502,504
M52195FPTA
IC601
Buffer amp
M52195FPTA
IC603
Buffer amp
MCI4066BFEL
IC301
SIGNAL SELECTOR
LC7536
IC602
ELECTRIC VOLUME
Level shift
Latch
Shift register
Control
Q304
Q305
XLU2040F-T2
IC302
SYSTEM CONT.
S.MUTE
C.MUTE
Q601~606
Muting drive
LA5608M-TE-L
IC602
BUS LINE DRIVE/ RESET/HALT
Standard Voltage
Q707
Regulator
Q701,703
Regulator
D701
Q702,704
Regulator
D702
Q705
Relay drive
RLY701
PT701
POWER TRANSFORMER
Q708
Regulator
Q706
Regulator
D710~713
To FL display
JK601/602
Lch
REC Lch
SIGA
SIGB
DATA
SE Lch
CLK
PWR SW
B.DATA
B.CLK
D.GND
+B
AC
AC
AC
RLT
CT
438173M6276F
IC801
CONTROL/FL DRIVE
KEY SW
LVIOION
IC401
DOLBY PRO. LOGIC DRIVE
12K SRAM
OUT A/D IN
OUT IN
IN D/A OUT
IN 20K L.P.F. OUT
Efect IN SW OUT
OUT S-trim IN
OUT NR IN
OUT 7K L.P.F. IN
Control logic
OSC
Vdd
A GND
Vref
Vcc
Vss

Ref. No.	Part No.	Part Name & Description	Remarks
L101	ELESNR68MA	COIL	
L103	ELEXTR47MA9	COIL	
L105, 106	ELELN822KL	COIL	
L151	SLM1B10-1M	COIL	(EG)
L191	ELESNR68MA	COIL	
L301	ELEXT1R0KA9	COIL	
L401	ELEPK101KA	COIL	
L601, 602	ELEXT101KA9	COIL	
L801	ELEXT1R0KA9	COIL	
		TRANSFORMER(S)	
PT701	RTP1I4G004	POWER TRANSFORMER	⚠
		COMPONENT COMBINATION(S)	
Z101	RLA2Z002M-T	COMPONENT COMBINATION	(EG)
Z102	RLI2Z006M-T	COMPONENT COMBINATION	
Z191	RLA6Z005M-T	COMPONENT COMBINATION	(E)
Z801	RCDHC-278N	REMOTE SENSOR	
		FILTER(S)	
CF201, 202	RLFFETWND01M	CERAMIC FILTER	(E)
CF201	RLFFETNGD01L	CERAMIC FILTER	(EG)
CF202	RLFFETMGD01L	CERAMIC FILTER	(EG)
		OSCILLATOR(S)	
X101	RSXZ456KM07M	OSCILLATOR(456KHz)	
X102	RLFDGTD011	OSCILLATOR(10.65MHz)	
X103	RSXC7M20S04T	OSCILLATOR(7.20MHz)	
X401	EFOEC8004T4	OSCILLATOR(8MHz)	
X801	RSXA4M19S03	OSCILLATOR(4.19MHz)	
		DISPLAY TUBE(S)	
FL801	RSL0182-F	FL DISPLAY	
		FM FRONT END PACK ASS'Y(S)	
Z120	RAL0006	FM FRONT END	(E)
Z120	RAL0019	FM FRONT END	(EG)
		SWITCH(ES)	
S801	EVQ21405R	TIMER PLAY	
S802	EVQ21405R	TIMER REC	
S803	EVQ21405R	LW/MW	
S804	EVQ21405R	FM	
S805	EVQ21405R	CD	
S806	EVQ21405R	TAPE	

Ref. No.	Part No.	Part Name & Description	Remarks
S807	EVQ21405R	DCC/PHONO	
S808	EVQ21405R	VCR1/VCR2/VDP	
S809	EVQ21405R	TUNING MODE	
S810	EVQ21405R	CLOCK/TIMER MODE	
S811	EVQ21405R	CLOCK/TIMER SET	
		RELAY(S)	
RL701	RSY0017M-0	RELAY	⚠
		CONNECTOR(S) AND SOCKET(S)	
CN101A	RJT057W007-1	CONNECTOR(7P)	
CN101B	RJU057W007	SOCKET(7P)	
CN102A	RJT057W007-1	CONNECTOR(7P)	
CN102B	RJU057W007	SOCKET(7P)	
CN801A	RJU003K010M1	SOCKET(10P)	
CN801B	RJT003K010-1	CONNECTOR(10P)	
CN802A	RJU003K008M1	SOCKET(8P)	
CN802B	RJT003K008-1	CONNECTOR(8P)	
CN803A	RJU003K010M1	SOCKET(10P)	
CN803B	RJT003K010-1	CONNECTOR(10P)	
CN901A	RJS1A6605	CONNECTOR(5P)	
CN902A	RJS1A6605	CONNECTOR(5P)	
CN903A	RJS1A6603	CONNECTOR(3P)	
CN904A	RJS1A6603	CONNECTOR(3P)	
		JACK(S)	
JK101	RJH5210	ANTENNA TERMINAL	
JK201	SJF3068-7N	PHONO	
JK202	SJF3069-5N	DCC	
JK601	RJT065K15	CONNECTOR(15P)	
JK602	RJT065K20	CONNECTOR(20P)	
JK901	SJF3069-5N	VDP/VCR2 P.B.(AUDIO)	
JK902	SJF3069-5N	VCR1 P.B./REC OUT(AUDIO)	
JK903	SJF3068-8N	VDP(VIDEO)	
JK904	SJF3069-3N	VCR1 IN/OUT, VCR2(VIDEO)	
		EARTH TERMINAL(S)	
E901, 902	SNE1004-2	GND PLATE	
		FLAT CABLE(S)	
W901	RWJ1810100KX	FLAT CABLE(10P)	
W902	RWJ1806100KX	FLAT CABLE(6P)	

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC101	LA1832MH-TEL	FM/AM IF AMP./AM OSC	
IC102	LC7218M-TE-L	PLL FREQ SYNTHESIZER	
IC201	AN6558SFE2	PHONO EQ AMP	
IC202	BA4558FDXT1	BUFFER AMP	
IC203	NJU7313AMT2	INPUT SELECTOR	
IC301	MC14066BFEL	SIGNAL SELECTOR	
IC302	XLU2040F-T1	SYSTEM CONT.	
IC401	LV1010N	DOLBY PRO-LOGIC DRIVE	
IC402	LA2785	DOLBY PRO-LOGIC CONTROL	
IC501	M5219FPTA	BUFFER AMP	
IC502	M62414SP	ELECTRONIC VOLUME	
IC503	M5219FPTA	BUFFER AMP	
IC601	M5219FPTA	BUFFER AMP	
IC602	LC7536	ELECTRONIC VOLUME	
IC603	M5219FPTA	BUFFER AMP	
IC801	M38173M6276F	SYSTEM CONT./FL DRIVE	
IC802	LA5608M-TE-L	BUS LINE/HALT/RESET	
IC901	NJM2279D	VIDEO SELECTOR	
		TRANSISTOR(S)	
Q101, 102	2SC2787L	TRANSISTOR	
Q103, 104	2SC2785FE	TRANSISTOR	
Q106	UN411FTA	TRANSISTOR	
Q107, 108	2SC3311ARSTA	TRANSISTOR	
Q191-193	2SC3311ARSTA	TRANSISTOR	(E)
Q301, 302	2SJ40CTA	TRANSISTOR	
Q303	UN4110TA	TRANSISTOR	
Q304, 305	UN4111	TRANSISTOR	
Q501, 502	2SC3327-A	TRANSISTOR	
Q503, 504	UN4115	TRANSISTOR	
Q505, 506	2SD2037EFTA	TRANSISTOR	⚠
Q511, 512	2SD1450RTA	TRANSISTOR	
Q513	UN4115	TRANSISTOR	
Q601, 602	2SD2144S	TRANSISTOR	
Q603, 604	2SC3327-A	TRANSISTOR	
Q605, 606	UN4115	TRANSISTOR	
Q701	2SD2037EFTA	TRANSISTOR	⚠
Q702	2SB1357EFTA	TRANSISTOR	⚠
Q703	2SK330GRYTA	TRANSISTOR	⚠
Q704	2SJ105GRYTA	TRANSISTOR	⚠
Q705	2SD592NCR	TRANSISTOR	
Q706	2SD2037EFTA	TRANSISTOR	⚠
Q707	2SC3940AQSTA	TRANSISTOR	⚠
Q708	2SB621A-R	TRANSISTOR	⚠
Q812, 813	UN4216-S	TRANSISTOR	
Q901	2SB621A-R	TRANSISTOR	⚠
Q902	2SD592ARSTA	TRANSISTOR	⚠
		DIODE(S)	
D101	MA4051MTA	DIODE	⚠
D102	MA165	DIODE	
D301, 302	MA165	DIODE	
D303, 304	MA4075MTA	DIODE	⚠
D401, 402	MA700TA	DIODE	
D444	MA165	DIODE	
D451, 452	MA4051MTA	DIODE	
D501	MA4100MTA	DIODE	⚠
D701-704	RL1N4003N02	DIODE	⚠
D705, 706	MA4140M	DIODE	⚠
D707, 708	MA165	DIODE	
D709	MA4120	DIODE	
D710, 711	RL1N4003N02	DIODE	⚠
D712, 713	MA185TA	DIODE	⚠
D714	MA4062-H	DIODE	⚠
D715	MA4051MTA	DIODE	⚠
D716	MA4082MTA	DIODE	⚠
D717	MA4039MTA	DIODE	⚠
D718	MA4270	DIODE	⚠
D719	RL1N4003N02	DIODE	⚠
D720	MA4100MTA	DIODE	⚠
D721	MA165	DIODE	
D751, 752	MA4150M	DIODE	⚠
D791, 792	MA719TA	DIODE	
D801-803	1SS291TA	DIODE	
D804-806	MA165	DIODE	
D807	SPR-305MDTF	L.E.D.	
D810	MA165	DIODE	
D811	MA165	DIODE	(EG)
D812	MA165	DIODE	(E)
D814	MA165	DIODE	
D816	MA165	DIODE	
D901, 902	MA4056MTA	DIODE	⚠
		VARIABLE RESISTOR(S)	
VR801, 802	EVQW2BF2024B	VOLUME/JOG CONTROL	
		COIL(S)	

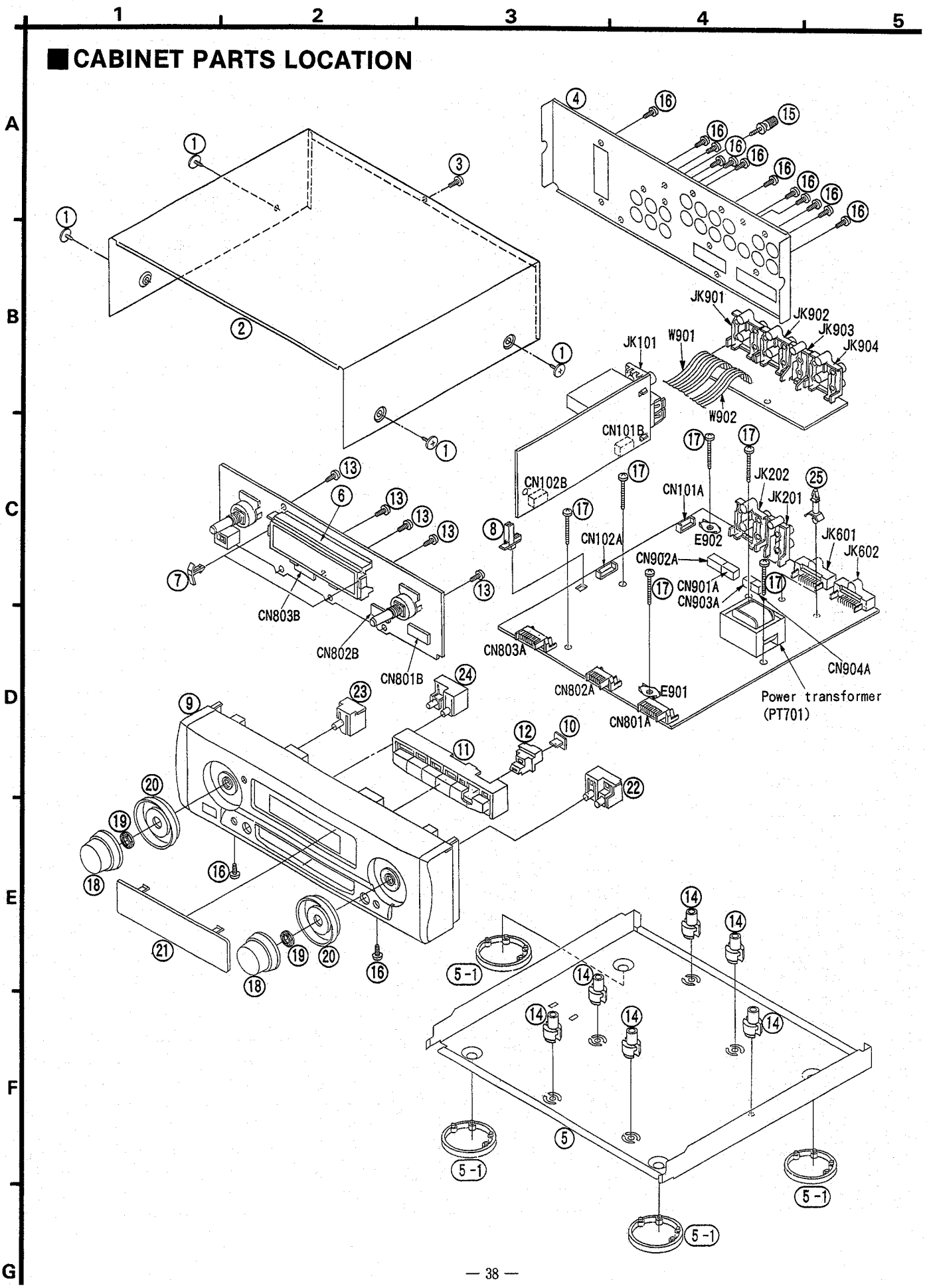
Ref. No.	Part No.	Values & Remarks
R693, 694	ERDS2TJ562	1/4W 5.6K
R701, 702	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R703, 704	ERDS2TJ332	1/4W 3.3K
R705, 706	ERG1SJ100E	1W 10
R707, 708	ERDS2TJ105T	1/4W 1M
R709	ERDS2TJ101	1/4W 100
R710, 711	ERDS2TJ153	1/4W 15K
R713, 714	ERDS2TJ100	1/4W 10
R715	ERG1SJ100E	1W 10
R716	ERD25FJ2R2	1/4W 2.2 ⚠
R718	ERDS2TJ102	1/4W 1K
R719-721	ERDS2TJ332	1/4W 3.3K
R722	ERDS2TJ103	1/4W 10K
R723	ERDS2TJ152	1/4W 1.5K
R724	ERDS2TJ331	1/4W 330
R725	ERDS2TJ102	1/4W 1K
R726	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R727, 728	ERDS2TJ151	1/4W 150
R729	ERDS2TJ4R7T	1/4W 4.7
R730	ERDS2TJ102	1/4W 1K
R731	ERD25FVJ1R0T	1/4W 1.0 ⚠
R811, 812	ERDS2TJ103	1/4W 10K
R815	ERDS2TJ123	1/4W 12K
R816	ERDS2TJ682T	1/4W 6.8K
R817	ERDS2TJ472	1/4W 4.7K
R818	ERDS2TJ332	1/4W 3.3K
R819	ERDS2TJ222	1/4W 2.2K
R820	ERDS2TJ182	1/4W 1.8K
R821	ERDS2TJ152	1/4W 1.5K
R822	ERDS2TJ122	1/4W 1.2K
R823	ERDS2TJ102	1/4W 1K
R824	ERDS2TJ821	1/4W 820
R832	ERDS2TJ471	1/4W 470
R833	ERDS2TJ102	1/4W 1K
R834-836	ERDS2TJ104	1/4W 100K
R841	ERDS2TJ224T	1/4W 220K
R842, 843	ERDS2TJ393	1/4W 39K
R844-846	ERDS2TJ102	1/4W 1K
R847	ERDS2TJ222	1/4W 2.2K
R849	ERDS2TJ392T	1/4W 3.9K
R850, 851	ERDS2TJ102	1/4W 1K
R852	ERDS2TJ392T	1/4W 3.9K
R853	ERDS2TJ103	1/4W 10K
R856	ERDS2TJ103	1/4W 10K
R858, 859	ERDS2TJ102	1/4W 1K
R860, 861	ERDS2TJ223	1/4W 22K
R862	ERDS2TJ333	1/4W 33K
R864	ERDS2TJ221	1/4W 220
R865	ERDS2TJ104	1/4W 100K
R866	ERDS2TJ470	1/4W 47
R867	ERDS2TJ223	1/4W 22K
R871, 872	ERDS2EJ121	1/4W 120
R873, 874	ERDS2TJ103	1/4W 10K
R875, 876	ERDS2TJ223	1/4W 22K
R901, 902	ERDS2TJ103	1/4W 10K
R903, 904	ERDS2TJ473	1/4W 47K
R905, 906	ERDS2TJ122	1/4W 1.2K
R907, 908	ERDS2TJ224T	1/4W 220K
R909, 910	ERDS2TJ103	1/4W 10K
R911, 912	ERDS2TJ473	1/4W 47K
R917, 918	ERDS2TJ332	1/4W 3.3K
R919, 920	ERDS2TJ680T	1/4W 68
R921, 922	ERDS2TJ820	1/4W 82
R923	ERDS2TJ680T	1/4W 68
R925, 926	ERDS2TJ103	1/4W 10K
R927, 928	ERDS2TJ473	1/4W 47K
		CAPACITORS
C101	ECBT1C103NS5	16V 0.01U
C103	ECBT1C103NS5	16V 0.01U
C104, 105	ECBT1H102KB5	50V 1000P
C106	ECBT1C103NS5	16V 0.01U
C107	ECBT1H473ZF5	50V 0.047U
C108	ECBT1H100JC5	50V 10P (E)
C108	ECBT1H8R2JC5	50V 8.2P (EG)
C109, 110	ECBT1C103NS5	16V 0.01U
C111	ECEA1EKA4R7B	25V 4.7U
C112	ECBT1C103NS5	16V 0.01U
C113	ECBT1H102KB5	50V 1000P
C114	ECEA1HKA3R3B	50V 3.3U
C115	ECEA1EKA4R7B	25V 4.7U
C116	ECBT1C822KS5	16V 8200P
C117	ECQB1H102JF3	50V 1000P (E)
C117	ECQB1H561JF3	50V 560P (EG)
C118, 119	ECFR1C103KR	16V 0.01U
C120, 121	ECEA1HKA010B	50V 1U
C122	ECEA1HKA2R2B	50V 2.2U
C123	ECEA1HKA010B	50V 1U
C124	ECBT1H102KB5	50V 1000P
C125	ECBT1H150JC5	50V 15P
C126	ECBT1H473ZF5	50V 0.047U
C127	ECEA1CKA220B	16V 22U
C128	ECBT1H102KB5	50V 1000P
C129, 130	ECEA0JKA101B	6.3V 100U
C132	ECBT1H102KB5	50V 1000P
C133, 134	ECBT1H270JU5	50V 27P
C135, 136	ECBT1C103KS5	16V 0.01U
C137, 138	ECBT1H561KB5	50V 560P
C139, 140	ECBT1C562KR5	16V 5600P (E)
C139, 140	ECBT1C682KR5	16V 6800P (EG)
C141-144	ECEA1HKA010B	50V 1U
C145	ECBT1H220JC5	50V 22P
C148	ECBT1C103NS5	16V 0.01U
C149	ECBT1H104ZF5	50V 0.1U
C171, 172	ECBT1H102KB5	50V 1000P
C173	ECEA1CKA220B	16V 22U
C174	ECEA1CKA100B	16V 10U
C181	ECBT1H471KB5	50V 470P (EG)
C196	ECBT1H102KB5	50V 1000P
C201, 202	ECBT1H180J5	50V 18P
C203, 204	ECBT1H151KB5	50V 150P
C205-208	ECBT1H101KB5	50V 100P
C209, 210	ECBT1H102KB5	50V 1000P
C211, 212	ECA1EAP330B	25V 33U
C213, 214	ECQB1H223JF3	50V 0.022U
C215, 216	ECBT1C682KR5	16V 6800P
C217, 218	ECA1HAP100B	50V 10U
C219, 220	ECBT1E103ZF	25V 0.01U
C221, 222	ECEA1CKA470B	16V 47U
C231, 232	ECBT1H101KB5	50V 100P
C235, 236	ECA1HAP100B	50V 10U
C237, 238	ECBT1H101KB5	50V 100P
C239, 240	ECA1HAP100B	50V 10U
C241, 242	ECBT1E103ZF	25V 0.01U
C251	ECBT1H104ZF5	50V 0.1U
C252	ECBT1H151KB5	50V 150P
C253	ECBT1H104ZF5	50V 0.1U
C254, 255	ECBT1H470J5	50V 47P
C301	ECEA1HKA010B	50V 1U
C302, 303	ECBT1H104ZF5	50V 0.1U
C304	ECBT1H221KB5	50V 220P
C305	ECBT1H220J5	50V 22P
C306	ECBT1H104ZF5	50V 0.1U
C307, 308	ECBT1C103NS5	16V 0.01U
C309	ECEA1HKA3R3B	50V 3.3U
C310	ECQV1H104JM3	50V 0.1U
C401	ECBT1E223ZF	25V 0.022U
C402	ECEA1CKA101B	16V 100U
C403	ECQV1H104JM3	50V 0.1U
C404	ECFR1H102KB	50V 1000P
C405	ECQV1H104JM3	50V 0.1U
C406	ECEA1CKA100B	16V 10U
C407	RCE0JKA221BV	6.3V 220U
C408	ECEA1HKA2R2B	50V 2.2U
C409	ECEA1CKA100B	16V 10U
C410	ECEA1CKA101B	16V 100U
C411	ECBT1E223ZF	25V 0.022U
C412	ECEA1CKA101B	16V 100U
C413	ECBT1H101KB5	50V 100P
C414	ECBT1H220J5	50V 22P
C415	ECBT1H560J5	50V 56P
C416	ECBA1H681KB5	50V 680P
C417	ECQV1H474JM3	50V 0.47U
C418	ECEA1CKA470B	16V 47U
C419, 420	ECQV1H104JM3	50V 0.1U

■ RESISTORS AND CAPACITORS

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R103	ERDS2TJ271	1/4W 270 (E)
R103	ERDS2TJ330	1/4W 33 (EG)
R104	ERDS2TJ822	1/4W 8.2K (E)
R104	ERDS2TJ103	1/4W 10K (EG)
R105	ERDS2TJ471	1/4W 470
R106	ERDS2TJ474	1/4W 470K
R107	ERDS2TJ331	1/4W 330
R108	ERDS2TJ474	1/4W 470K
R109	ERDS2TJ331	1/4W 330
R110	ERDS2TJ102	1/4W 1K
R112	ERDS2TJ104	1/4W 100K
R113	ERDS2TJ103	1/4W 10K
R114	ERDS2TJ562	1/4W 5.6K
R115	ERDS2TJ561	1/4W 560
R116	ERDS2TJ102	1/4W 1K
R117	ERDS2TJ273	1/4W 27K (E)
R117	ERDS2TJ823	1/4W 82K (EG)
R118	ERDS2TJ562	1/4W 5.6K
R119	ERDS2TJ682T	1/4W 6.8K (E)
R119	ERDS2TJ822	1/4W 8.2K (EG)
R120	ERDS2TJ473	1/4W 47K
R121	ERDS2TJ332	1/4W 3.3K
R122	ERDS2TJ272T	1/4W 2.7K
R124	ERDS2TJ271	1/4W 270
R125, 126	ERDS2TJ152	1/4W 1.5K
R127	ERDS2TJ103	1/4W 10K
R128	ERDS2TJ820	1/4W 82
R129	ERDS2TJ473	1/4W 47K
R130	ERDS2TJ103	1/4W 10K
R132	ERDS2TJ103	1/4W 10K
R133-137	ERDS2TJ102	1/4W 1K
R138	ERDS2TJ103	1/4W 10K
R139, 140	ERDS2TJ272T	1/4W 2.7K
R141, 142	ERDS2TJ102	1/4W 1K
R143, 144	ERDS2TJ222	1/4W 2.2K
R145, 146	ERDS2TJ102	1/4W 1K (E)
R145, 146	ERDS2TJ821	1/4W 820 (EG)
R147, 148	ERDS2TJ474	1/4W 470K
R149	ERDS2TJ680T	1/4W 68
R171, 172	ERDS2TJ102	1/4W 1K
R173	ERDS2TJ471	1/4W 470
R175	ERDS2TJ102	1/4W 1K
R176	ERDS2TJ391	1/4W 390
R191	ERDS2TJ103	1/4W 10K (E)
R192	ERDS2TJ122	1/4W 1.2K (E)
R193	ERDS2TJ182	1/4W 1.8K (E)
R194	ERDS2TJ122	1/4W 1.2K (E)
R195	ERDS2TJ222	1/4W 2.2K (E)
R201, 202	ERDS2TJ102	1/4W 1K
R203, 204	ERDS2TJ473	1/4W 47K
R205, 206	ERDS2TJ122	1/4W 1.2K
R207, 208	ERDS2TJ224T	1/4W 220K
R209, 210	ERDS2TJ103	1/4W 10K
R211, 212	ERDS2TJ473	1/4W 47K
R213, 214	ERDS2TJ331	1/4W 330
R215, 216	ERDS2TJ221	1/4W 220
R217, 218	ERDS2TJ184T	1/4W 180K
R219, 220	ERDS2TJ123	1/4W 12K
R221, 222	ERDS2TJ680T	1/4W 68
R223, 224	ERDS2TJ102	1/4W 1K
R225, 226	ERDS2TJ563	1/4W 56K
R227, 228	ERD25FJ470	1/4W 47 ⚠
R229, 230	ERDS2TJ102	1/4W 1K
R231, 232	ERDS2TJ104	1/4W 100K
R233, 234	ERDS2TJ473	1/4W 47K
R235, 236	ERDS2TJ272T	1/4W 2.7K
R237, 238	ERDS2TJ122	1/4W 1.2K
R239, 240	ERDS2TJ272T	1/4W 2.7K
R253-255	ERDS2TJ222	1/4W 2.2K
R291, 292	ERDS2TJ102	1/4W 1K
R301, 302	ERDS2TJ104	1/4W 100K
R303, 304	ERDS2TJ333	1/4W 33K
R305	ERDS2TJ104	1/4W 100K
R306	ERDS2TJ102	1/4W 1K
R307, 308	ERDS2TJ104	1/4W 100K
R311, 312	ERDS2TJ332	1/4W 3.3K
R313-319	ERDS2TJ222	1/4W 2.2K
R320	ERDS2TJ221	1/4W 220
R323	ERDS2TJ102	1/4W 1K
R333	ERDS2TJ103	1/4W 10K
R401	ERDS2TJ102	1/4W 1K
R402	ERDS2TJ105T	1/4W 1M
R403	ERDS2TJ333	1/4W 33K
R404, 405	ERDS2TJ102	1/4W 1K
R406	ERDS2TJ183T	1/4W 18K
R407	ERDS2TJ222	1/4W 2.2K
R408, 409	ERDS2TJ332	1/4W 3.3K
R411, 412	ERDS2TJ103	1/4W 10K
R413, 414	ERDS2TJ222	1/4W 2.2K
R415, 416	ERDS2TJ473	1/4W 47K
R421, 422	ERDS2TJ332	1/4W 3.3K
R444	ERDS2TJ334	1/4W 330K
R445	ERDS2TJ103	1/4W 10K
R491-493	ERDS2TJ274	1/4W 270K
R501, 502	ERDS2TJ473	1/4W 47K
R503, 504	ERDS2TJ222	1/4W 2.2K
R505, 506	ERDS2TJ682T	1/4W 6.8K
R511, 512	ERDS2TJ223	1/4W 22K
R513, 514	ERDS2TJ222	1/4W 2.2K
R515	ERDS2TJ473	1/4W 47K
R516, 517	ERDS2TJ561	1/4W 560
R518, 519	ERDS2TJ333	1/4W 33K
R522, 523	ERDS2TJ104	1/4W 100K
R524, 525	ERDS2TJ102	1/4W 1K
R526, 527	ERDS2TJ334	1/4W 330K
R528, 529	ERDS2TJ472	1/4W 4.7K
R530	ERDS2TJ473	1/4W 47K
R532	ERDS2TJ102	1/4W 1K
R535	ERDS2TJ222	1/4W 2.2K
R551, 552	ERDS2TJ4R7T	1/4W 4.7
R553	ERDS2TJ222	1/4W 2.2K
R555	ERDS2TJ222	1/4W 2.2K
R561, 562	ERDS2TJ820	1/4W 82
R563, 564	ERDS2TJ102	1/4W 1K
R565	ERDS2TJ334	1/4W 330K
R567	ERDS2TJ105T	1/4W 1M
R569	ERDS2TJ222	1/4W 2.2K
R570	ERDS2TJ472	1/4W 4.7K
R591, 592	ERDS2TJ222	1/4W 2.2K
R595, 596	ERDS2TJ471	1/4W 470
R601, 602	ERDS2TJ224T	1/4W 220K
R603, 604	ERDS2TJ105T	1/4W 1M
R607, 608	ERDS2TJ223	1/4W 22K
R609, 610	ERDS2TJ473	1/4W 47K
R611, 612	ERDS2TJ392T	1/4W 3.9K
R613, 614	ERDS2TJ682T	1/4W 6.8K
R617, 618	ERDS2TJ102	1/4W 1K
R619, 620	ERDS2TJ331	1/4W 330
R621, 622	ERDS2TJ104	1/4W 100K
R623, 624	ERDS2TJ222	1/4W 2.2K
R625, 626	ERDS2TJ102	1/4W 1K
R627, 628	ERDS2TJ104	1/4W 100K
R629, 630	ERDS2TJ102	1/4W 1K
R631	ERDS2TJ472	1/4W 4.7K
R632	ERDS2TJ105T	1/4W 1M
R633	ERDS2TJ472	1/4W 4.7K
R634	ERDS2TJ334	1/4W 330K
R635-637	ERDS2TJ272T	1/4W 2.7K
R638-643	ERDS2TJ102	1/4W 1K
R645-648	ERDS2TJ471	1/4W 470
R649, 650	ERDS2TJ102	1/4W 1K
R652	ERDS2TJ334	1/4W 330K
R666	ERDS2TJ561	1/4W 560
R691, 692	ERDS2TJ332	1/4W 3.3K

■ CABINET PARTS LOCATION



Ref. No.	Part No.	Values & Remarks
C421	ECEA1HKAR47B	50V 0.47U
C422	ECEA1VKA4R7B	35V 4.7U
C423	ECEA1HKAR47B	50V 0.47U
C424	ECEA1VKA4R7B	35V 4.7U
C425	ECEA1HKAR15B	50V 0.15U
C426	ECEA1HKA3R3B	50V 3.3U
C427, 428	ECQV1H154JM3	50V 0.15U
C429	ECEA1HKA3R3B	50V 3.3U
C430	ECEA1HKAR15B	50V 0.15U
C431	ECEA1VKA4R7B	35V 4.7U
C432	ECEA1HKAR47B	50V 0.47U
C433	ECEA1VKA4R7B	35V 4.7U
C434	ECEA1HKAR47B	50V 0.47U
C435, 436	ECQV1H104JM3	50V 0.1U
C437, 438	ECEA1HKA010B	50V 1U
C439	RCE0JKA221BV	6.3V 220U
C440-443	ECEA1CKA100B	16V 10U
C444	RCE0JKA221BV	6.3V 220U
C445	ECFR1E473KR	25V 0.047U
C446	ECFR1C223MR	16V 0.022U
C447, 448	ECEA1HKA3R3B	50V 3.3U
C461, 462	ECBT1E103ZF	25V 0.01U
C501, 502	ECA1HPXS3R3B	50V 3.3U
C503, 504	ECBT1E103ZF	25V 0.01U
C505-508	ECBT1H101KB5	50V 100P
C509	ECEA1CKA100B	16V 10U
C510	ECEA1HKAR22B	50V 0.22U
C511	ECEA1HKA3R3B	50V 3.3U
C512	ECEA1CKA100B	16V 10U
C513	ECBT1E103ZF	25V 0.01U
C514	ECEA1HKA2R2B	50V 2.2U
C515	ECBT1E103ZF	25V 0.01U
C516	ECEA1CKA100B	16V 10U
C517, 518	ECA1HPXS3R3B	50V 3.3U
C519	ECBT1H220J5	50V 22P
C520	ECBT1H101KB5	50V 100P
C521, 522	ECEA1HKA3R3B	50V 3.3U
C523, 524	ECBT1E103ZF	25V 0.01U
C525	ECEA1CKA100B	16V 10U
C526	ECEA1CKA330B	16V 33U
C527, 528	ECEA1HKA4R7B	50V 4.7U
C529	ECBT1E103ZF	25V 0.01U
C530	ECEA1CKA100B	16V 10U
C531	ECBT1H102KB5	50V 1000P
C535	ECEA1EKA470B	25V 47U
C553	ECBA1H681KB5	50V 680P
C561	ECEA1HKA4R7B	50V 4.7U
C563	ECBT1H221KB5	50V 220P
C564	ECBT1H471KB5	50V 470P
C591, 592	ECA1CPXS100B	16V 10U
C593, 594	ECBT1E103ZF	25V 0.01U
C601-604	ECA1HAP3R3B	50V 3.3U

Ref. No.	Part No.	Values & Remarks
C605, 606	ECBT1E103ZF	25V 0.01U
C609-612	ECA1HAP3R3B	50V 3.3U
C613, 614	ECBT1E103ZF	25V 0.01U
C615, 616	ECA1HAP3R3B	50V 3.3U
C617	ECEA1CKA100B	16V 10U
C618	ECEA1CKA220B	16V 22U
C620	ECBT1H151KB5	50V 150P
C621	ECBT1H104ZF5	50V 0.1U
C622, 623	ECBT1H220J5	50V 22P
C624	ECBT1E103ZF	25V 0.01U
C625-628	ECBT1H101KB5	50V 100P
C629	ECBT1H104ZF5	50V 0.1U
C630, 631	ECBT1H101KB5	50V 100P
C632	ECBT1E103ZF	25V 0.01U
C633, 634	ECBT1H101KB5	50V 100P
C635	ECBT1H102KB5	50V 1000P
C636-638	ECBT1H104ZF5	50V 0.1U
C641	ECBT1H102KB5	50V 1000P
C670	ECBT1H101KB5	50V 100P
C691, 692	ECA1HAP100B	50V 10U
C693, 694	ECBT1H101KB5	50V 100P
C695, 696	ECBT1H221KB5	50V 220P
C697-699	ECBT1H101KB5	50V 100P
C701	ECA1VM102B	35V 1000U ⚠
C702	ECA1VM471B	35V 470U ⚠
C703, 704	ECKR1H103ZF5	50V 0.01U
C705	ECA1EM102B	25V 1000U
C706	ECA1EM471B	25V 470U
C707, 708	ECKR1H103ZF5	50V 0.01U
C711, 712	ECA1HAP3R3B	50V 3.3U
C713-716	ECA1CAP470B	16V 47U
C717	ECBT1H104ZF5	50V 0.1U
C718	RCE1EM471BV	25V 470U ⚠
C719, 720	ECBT1E103ZF	25V 0.01U
C721	ECEA1AKA101B	10V 100U
C722	ECBT1E103ZF	25V 0.01U
C723	ECEA1HKA100B	50V 10U
C724, 725	ECKT1H223ZF	50V 0.022U
C731	ECEA1VKA100B	35V 10U
C791	RCE1HM221BV	50V 220U
C792	ECEA1CKA100B	16V 10U
C801	ECEA0JU102	6.3V 1000U
C803	ECBT1H104ZF5	50V 0.1U
C805	ECEA0JKA101B	6.3V 100U
C806	ECBT1E223ZF	25V 0.022U
C807	ECBT1H102KB5	50V 1000P
C809	ECBT1E103ZF	25V 0.01U
C810	ECEA1CKA100B	16V 10U
C811	ECBT1E103ZF	25V 0.01U
C813, 814	ECEA1HKA010B	50V 1U
C815	ECBT1E103ZF	25V 0.01U
C851	ECEA1HKAR33B	50V 0.33U

Ref. No.	Part No.	Values & Remarks
C852	ECQV1H104JM3	50V 0.1U
C861	ECBT1H220GC5	50V 22P
C862	ECBT1H270JU5	50V 27P
C872	ECBT1E103ZF	25V 0.01U
C901-906	ECBT1H101KB5	50V 100P
C909, 910	ECBT1H104ZF5	50V 0.1U
C911, 912	ECEA1CKA100B	16V 10U
C913	ECBT1H102KB5	50V 1000P
C914, 915	ECBT1H470J5	50V 47P
C917, 918	ECBT1H101KB5	50V 100P

■ REPLACEMENT PARTS LIST

Notes: *The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.) Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RHD30007	SCREW	
2	RKM0203A-2K	CABINET	
3	XTB3+8JFZ	SCREW	
4	RGR0194B-A2	REAR PANEL	(E)
4	RGR0194B-B	REAR PANEL	(EG)
5	RFKJSCH404EK	BOTTOM BOARD ASS'Y	
5-1	RKA0011-3	FOOT	
6	RMN0194	FL HOLDER	
7	RMN0195	FL SPACER	
8	RMN0203	P. C. B. HOLDER	
9	RFKGTCA1080E	FRONT PANEL ASS'Y	
10	RGL0237-Q	PANEL LIGHT	
11	RFKNT1080EA	INPUT SELECT BUTTON ASS'Y	(E)

Ref. No.	Part No.	Part Name & Description	Remarks
11	RFKNT1080EGA	INPUT SELECT BUTTON ASS'Y	(EG)
12	RFKNT1080EB	PANEL LIGHT BUTTON ASS'Y	(E)
12	RFKNT1080EGB	PANEL LIGHT BUTTON ASS'Y	(EG)
13	XTBS26+8J	SCREW	
14	SHE185-2	P. C. B. SPACER	
15	SNE2123	SCREW	
16	XTBS3+8JFZ1	SCREW	
17	XTB3+16JFZ	SCREW	
18	RGW0206-K	VOLUME KNOB	
19	RHN90001	NUT	
20	RGK0644-S	VOLUME ORNAMENT	
21	RKW0342-V	FL PANEL	
22	RFKNT1060EC	REC/PLAY TIMER BUTTON ASS'Y	
23	RFKNT1060ED	SET BUTTON ASS'Y	
24	RFKNT1060EE	CLOCK/TUN. MODE BUTTON ASS'Y	
25	RMR0439	LOCKING SUPPORT	

■ About the Self-Diagnostic Mode

This system is equipped with a self-diagnostic function which, in the event of a malfunction, automatically displays a code indicating the nature of the malfunction. Use this self-diagnostic function when servicing the system.

Display method

To display the malfunction code

U-70 ..... Automatically displays on the tuner/sound processor and the CD player when a malfunction occurs.
F-61 ..... Automatically displays on the tuner/sound processor when a malfunction occurs.

To return to the normal display

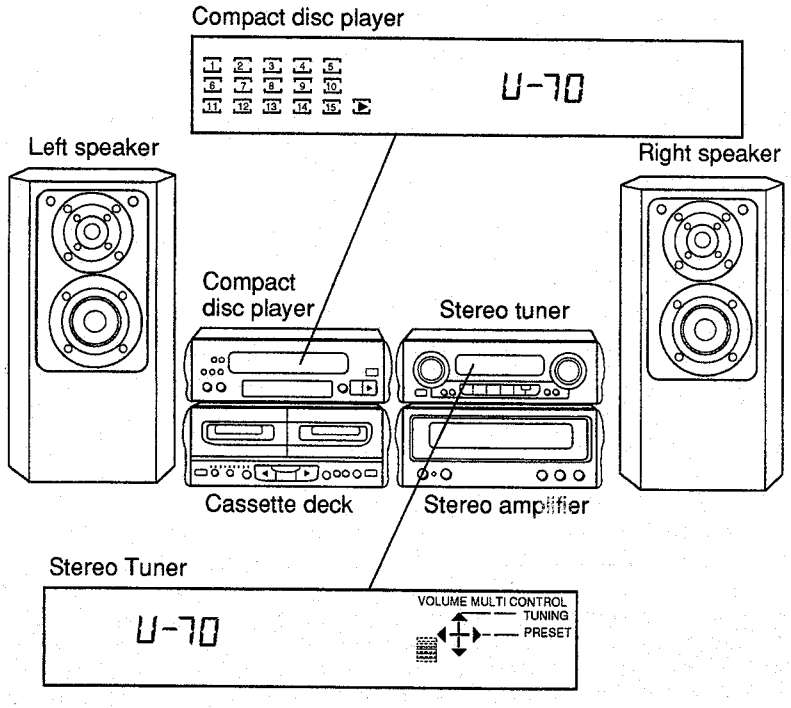
1. For U-70:

- Press and operation button (any button other than the OPEN/CLOSE button) on the unit (tuner/sound processor or CD player) which displayed "U-70".
- To re-display the code, switch the power off (POWER STANDBY button), and then switch power back on again.

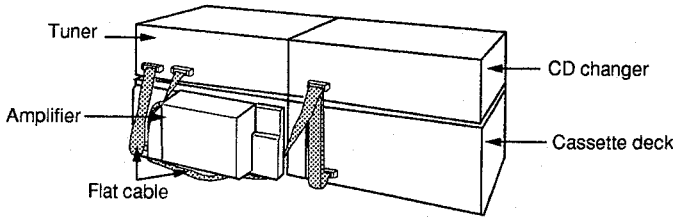
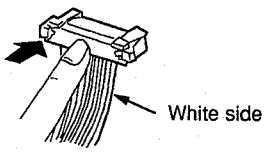
2. For F-61:

- If "F-61" displayed, the power will automatically be switched off and the standby indicator will light up.
- "F-61" will be displayed for 3 seconds, and then the clock will be displayed.
- To re-display the code, switch the power on. "F-61" will be re-displayed, and then after 3 seconds the clock will be displayed and the power will automatically switch off.

Display location



Display contents

Display code	Problem or condition	Correction procedure
U-70 (displayed automatically)	A bus-line communications error has occurred as a result of the flat cables being inserted incorrectly, thus preventing the system from operating. 1. If "U-70" is displayed on the tuner/ sound processor, the tape deck cannot be operated by remote control. 2. If "U-70" is displayed on the CD player, the CD player cannot be operated by remote control.	 1. To check for correct insertion of the flat cables ① Match each connector with the color (black/white) of the connection port and insert until you hear a click. ② Insert the flat cables at the back of the unit in the order indicated. Make sure the white side of the cable is on the right.  2. Failure of flat cable (Check and replace as necessary.) 3. If the problem is not corrected by items (1.) and (2.) above, this indicates a faulty IC. **Compact disc player:** IC601 (M38112M4102F) IC602 (LA5608M-TE-L) Check these IC's and replace as necessary.
F-61	When the power switch is switched on, it automatically switches back off, marking it impossible to switch power on.	1. Faulty amplifier output IC (IC501). 2. Fan motor is burnt out, locked, or stopped. 3. Speaker cable shorts. Replace the output IC, fan motor or speaker cable as necessary.